A COMPARISON OF THE INTONATION OF MODERN GREEK AND ENGLISH WITH SPECIAL REFERENCE TO GREEK LEARNERS OF ENGLISH

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ABSTRACT

The present study is an investigation of the production and perception of English intonation by a group of forty-four native speakers of Greek, together with a study of the production and perception of Greek intonation by the same forty-four subjects, and of the production and perception of English intonation by a control group of twelve native speakers of English. For both languages, data was gathered from the reading of a text and of sentences, and from spontaneous speech in conversation. Both auditory and (to a lesser extent) instrumental analysis is employed.

Three main aims are included in the present study. (i) With regard to the Greek data, an attempt is made to describe the intonation of Modern Greek using a system closely modelled upon that devised for English by O'Connor and Arnold and presented in the Intonation of Colloquial English, (1973). This attempt, believed to be the first of its kind, leads to a satisfactory characterisation of Greek intonation, particularly for the comparative and pedagogical purposes of this thesis. (ii) With regard to English as produced and perceived by native speakers of Modern Greek, an attempt has been made to trace any possible signs of intonational interference from Modern Greek to English, as predicted by Contrastive Analysis. Extensive evidence of interference is found in both production and perception, lending strong support to the transfer theory. (iii) As far as native speakers of English are concerned, the aim was to gather control data in order to find out whether and to what extent actual performance is in accordance with what might be expected on the

basis of O'Connor and Arnold's influential pedagogical account. Although the findings are largely in agreement with the existing account, some specific divergences have come to light.

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INTONATION MARKS/SYMBOLS

ˋ ˊ : Falling - Rising tone: it covers cases of fall - rise (O'Connor and Arnold, 1973) as well as fall plus rise (O'Connor and Arnold, 1973) when the rising movement is realized in a different syllable from the one where the fall is realized, whereas ˅ is used for cases where the fall and the rise are completed in the same syllable.

ˆ : Combination of falling - rising and level tone

ˊˉ : Combination of low - rising and level tone

ˊ : low to high - rising tone

˜ : stylized fall

Low - Rising/High - Rising/ Rising - Falling (instead of Low - Rise, High - Rise and Rise - Fall): when the rising/falling movement does not have a fixed ending point

ˏ : Low - Rise

ˊ : High - Rise

\ : Low - Fall

' : High - Fall

" : Extra High - Fall

, :Low low - fall

^ : Rise - Fall

~ : Rise - Fall - Rise

> : Level

' : High head, accented pre nuclear syllable (that is, pitch prominent and stressed)

° : stressed syllable (that is, non pitch prominent)

// : Real Pause

/ : Brief Pause

/ : Very slight Pause

ABBREVIATIONS

A: Anacrusis

AUX: Auxiliary.

CA: Contrastive Analysis

E: English

EA: Error Analysis

Fo: Fundamental Frequency

F(x): Fundamental Frequency Contour

H: Hearer

I: Interlocutor

IL: Interlanguage

L(x): Laryngograph Signal

MG: Modern Greek

NES: Native English Speakers

NSMG: Native Speakers of Modern Greek

RP: Received Pronunciation

S: Speaker, Subject

TL: Target Language

+T: Positive Transfer

V: Verb

TRANSCRIPTION CONVENTIONS

Examples of the Greek data have been phonetically transcribed throughout the present study. The Greek phonemes that have been used are the following:

a. vowels: /a/ for "α", /i/ for "ι", "η", "υ", "ει" and "οι", /e/ for "ε" and "αι", /o/ for "ο" and "ω" and /u/ for "ου".

b. consonants: /p/ for "π", /t/ for "τ", /k/ for "κ", /b/ for "μπ", /d/ for "ντ", /g/ for "γκ" or "γγ", /θ/ for "θ", /δ/ for "δ", /f/ for "φ", /v/ for "β", /s/ for "σ", /z/ for "ζ", /γ/ for "γ", /x/ for "χ", /m/ for "μ", /n/ for "ν", /l/ for "λ", /r/ for "ρ" and /j/ for "ι".

Lastly, palatalisation of /k/, /l/, /n/ and /x/ is indicated through the use of /j/ (/k/ and /x/ are palatalised when they occur before /i/ and /e/ or before /j/ and a vowel while /l/ and /n/ are palatalised when they occur before /j/ and a vowel).

This study is concerned with the production and perception of intonation in 44 NSMG as well as 12 NES. The investigation focuses on three areas:

a. the intonation of NSMG when using MG,

b. the intonation of NSMG when using E and

c. the intonation of NES when using E. This group was used as control data so as to evaluate the performance of NSMG when the latter group were using E. The 56 informants were tested in terms of production as well as perception.

Three main aims are included in the present study:

1. With regard to the Greek data, an attempt is made to describe the intonation of MG using a system modelled upon that of O'Connor and Arnold presented in the Intonation of Colloquial English, (1973). Very little is known about the intonation of MG; apart from Waring (1976) who conducted a systematic (non instrumental) investigation in this area, no other similar study has to the best of my knowledge so far been carried out. Therefore, this is the first attempt

to investigate whether a system along the lines of O'Connor and Arnold (1973) can successfully describe the intonation of MG.

2. With regard to the English data and NSMG, an attempt has been made to trace any possible signs of intonational interference from MG to E. The observation that prior learning affects positively and negatively subsequent learning has led to the formulation of "transfer theory" which has been regarded the psychological foundation of CA. As the reader will have the chance to observe later on, the present study supported to a large extent the above theory as it was found that the intonation patterns of NSMG when using E were often transferred from MG.

3. As far as NES are concerned, the aim was to gather control data in order to find out whether and to what extent actual performance is in accordance with what might be expected on the basis of O'Connor and Arnold (1973). Language is a dynamic system and so, it is susceptible to all sorts of linguistic and intonational changes which arise over the years.

1. NUCLEUS: THE CONCEPT OF NUCLEUS IN E AND MG

INTRODUCTION

In this study an attempt is made to describe the intonation patterns of some NSMG and NES. The formal description of the Greek and English tones has been mainly based upon O'Connor and Arnold's "Intonation of colloquial English" (1973).

Much has been written on the formal description of English intonation (Jassem, 1952; Kingdon, 1958; Bolinger, 1958a, 1961a, 1972b, 1986; Schubiger, 1958; Halliday, 1967; Crystal, 1969; Ladd, 1980; etc.). I hold the view, that the description given by O'Connor and Arnold (1973) is the most successful one for practical purposes such as language description and pedagogy. This description refers to Received Pronunciation (RP), a variety of British English which has attracted the attention of most researchers. I have drawn also upon the general British tradition of intonation description, which is to a large extent compatible with O'Connor and Arnold (1973).

Let us now refer briefly to the type of framework set up by O'Connor and Arnold (1973) for the description of the intonation of colloquial E; although their description mainly operates in one area, namely the form and meaning of nuclear and pre - nuclear patterns of E, some information about tonicity and tonality is also given.

In this type of intonational analysis one is concerned with three important areas which reflect the tendencies of interlocutors in real communication situations: a.,the division of speech into stretches of varying length which constitute the units of analysis (tonality), b. the identification of the nuclear syllable (tonicity) and c. the identification and description of nuclear and pre - nuclear patterns (tone).

Intonation units have been given several other names by intonologists such as: word groups (O'Connor and Arnold, 1973), intonation phrases, rhythmic units, breath groups, sense groups, phonological phrases, phonological clauses, intonation groups. In this study the term intonation group will be used (IG)[1]. The boundaries of each IG coincide with possible pause (see also chapter 3 and

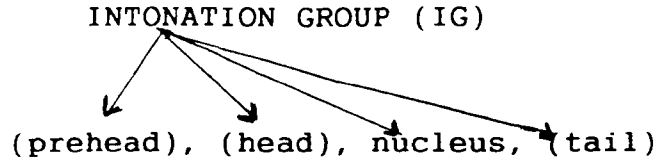
Halliday, 1976b:216; Quirk *et al*, 1972).

The constituents of the IG (see also diagram on the following page) are an obligatory nucleus, an optional head, a prehead and a tail which may occur in any combination.

The nucleus is the last accented syllable of the IG and it is considered to be of high importance in terms of information value. According to O'Connor and Arnold (1973), the term "accented" refers to syllables which are stressed (constitute rhythmic beats) as well as pitch prominent (initiating pitch movement or sustension). Any other accented syllables which may exist in the IG are parts of the head. The head extends from the first accented syllable of the IG up to but not including the nucleus.

The prehead consists of any syllables which may appear before the head.

If there exist other syllables (stressed/non stressed) after the nucleus they constitute the tail of the IG.



The nucleus is one stressed and accented syllable. The head begins with a syllable which is stressed and accented (and may contain further stresses and accents). The prehead and the tail are strings of syllables which may possibly contain stresses, but no accents.

O'Connor and Arnold (1973) talk about 6 kinetic nuclear tones and 1 static nuclear tone, 4 basic and 4 emphatic heads and 2 types of preheads in E intonation. The present study will focus its attention almost exclusively on the description of the Greek and English nuclear tones while pre - nuclear patterns will appear only incidentally.

1. 1 THE NUCLEAR SYLLABLES IN E

Nuclear syllables have been described as having 3 basic properties, namely loudness (intensity), duration (length) and pitch. Acoustic as well as physiological parameters are involved in these properties. Pitch is physiologically dependent on the rate of vocal fold vibration within the larynx. Rate of vibration of the vocal folds is reflected in the acoustic measurement of fundamental frequency (Fo, see also Fry, 1970, Allan, 1986). Pitch is considered the most crucial factor in identifying the nuclear syllable.

In E, the syllable which carries the nucleus is usually the last accented syllable of the IG (that is, stressed and pitch prominent). Consider the following sentences:

(1) I ²want some ORANGES

(2) John is writing a LETTER.

(3) He was an extraordinarily tall MAN.

The nucleus in all the above examples is expected to fall on the last lexical item. This is so because this item in each one case (1, 2 and 3) is considered by S to carry the most crucial bit in terms of information value. In cases such as the above, we talk about "unmarked tonicity" (the nucleus falls on the last/rightmost item). Material before the nucleus may or may not be in focus; it is certainly not marked as requiring particular attention from the listener. As Cruttenden (1986:49) states, "there seems to be some general psycholinguistic principle at work whereby the processing of intonational meaning takes place at the end of each group and the most recent signal carries the most meaning". However, there exist a number of cases in E where the last pitch accent may be downgraded and ignored because something else coming earlier in the sentence is considered as more important than the rightmost constituent. These are rather "marked" cases where the last item is deaccented because it has been mentioned before or a contrast is implied. Consider now the following sentences:

(1a) I want SOME oranges.

(2a) John is WRITING a letter.

(3a) He was an extraordinarily TALL man.

The modification in terms of nucleus placement of the previous sentences denotes that the major information has been shifted to the left. Cases 1a, 2a and 3a are examples of what is sometimes called contrastive stress.

1. 2. THE FUNCTIONS OF NUCLEUS IN E

Assuming that the material in an IG is in broad focus, we must attempt to answer the following question: Which grammatical categories take the nucleus? or (at least): Which categories in the lexicon often tend to attract the nucleus? A fundamental division has been employed by various researchers between lexical and grammatical items. The traditional rule[3] for nucleus placement has been: the nucleus regularly occurs on the last accented (prominent) lexical item of the IG. All the examples given above in sentences 1, 2 and 3 are in accordance with the above rule. As Pike (1945) pointed

out, "content words" are those which carry the major semantic weight of the sentence. By "content words" (lexical items) we mean nouns, main verbs, adjectives, adverbs, demonstrative as well as interrogative pronouns, interjections, etc.

"Function"/"grammatical" words, on the other hand, are those which have little semantic content of their own and serve primarily to mark grammatical relationships in the sentence. They are typically auxiliary verbs, prepositions, reflexive and personal pronouns, adverbs of degree and connectives. The former - Pike claimed - are normally stressed, the latter unstressed.

Unfortunately for intonational description, things are not as simple as that. Although the above general rule works quite satisfactorily for the prediction of nucleus placement in most cases, there are quite a number of identifiable exceptions. Cruttenden (1986: 83-86) groups cases where the nucleus fails to fall on the last lexical item, under three basic headings:
1. "event sentences", 2. "final adverbials" and
3. "adjectival wh - objects". He also mentions that

deaccentuation of the last lexical item operates in vocatives.

1. 3 THE RHYTHM OF MG

In comparing the general rhythmic characteristics of E and MG[4], I believe that one comes across more similarities than differences between the two languages.

The traditional literature has operated with a distinction between stress - timed and syllable - timed languages (Pike, 1945) and has classified MG as a syllable - timed language (Mirambel, 1959). But lexical stress is of considerable importance in MG[5] and spoken Greek does not consist of a sequence of equal syllables: it is plain that some are strong and others are weak[6] (these two constitute characteristics of English rhythm too). In the following examples, lexical stress is maintained in separate words as well as in connected speech:

(4) 'poli - po 'li ("town/city" - "much/alot")

(4a) i a'θina 'ine 'mja 'omorfi 'poli ("Athens is a beautiful city")

(4b) to 'spiti mas 'ine po'li me'γalo "our house is very big")

(5) me'taksi - meta'ksi ("silk" - "between/among")

(5a) to me 'taksi 'ine akri 'vo stin e 'laδa ("silk is expensive in Greece")

(5b) meta'ksi tus i'pirxje 'pada ili 'krinia
("there was always sincerity between them")

Weakening (reduction) of unstressed syllables is not the norm in MG. Nevertheless, there are cases where unstressed syllables disappear altogether in fast speech. This phenomenon refers not only to the Athenian dialect but to several other (northern) dialects as well. For example, certain unstressed words may be elided in an utterance (see Georgountzou, 1989 and eg 6 below). These are often function words which do not carry any semantic load' (similarly in E it is function words which are

generally unstressed and have obligatory weak forms). Perhaps it would be more accurate to claim that MG is neither a stress nor a syllable - timed language but bears similarities to both types (Dauer, 1980:371, 372). After all, these terms have not been left without criticism; even for languages such as E where the term stress - time is regarded as mostly suitable, there exist some reservations with regard to whether stress - time describes E accurately (see also Klatt, 1976:1218).

The rhythm of MG seems in fact to be given by a pattern of recurrent stressed syllables which are perceptually salient. Therefore, we could claim that the rhythm of MG is based on the foot; every IG consists of a number of feet (much as in E, see also Couper-Kuhlen, 1986:55-59). Consider the following example taken from a recording of natural speech:

(6) A F F F F

e 'mis /'omos / 'taxume / 'fai/ ("But we have eaten them")

In the above example we can distinguish four feet. The first foot consists of one unstressed (anacrusis) and one stressed syllable. The following feet are composed of one stressed and one unstressed syllable (second foot), one stressed and two unstressed syllables (third foot) and one stressed and one unstressed syllable (fourth foot). Although, as mentioned above, no reduction of the unstressed syllables -mos, -xu, -me and -i can be observed, we may possibly get elision of the syllable -xu:

[e'mis 'omos 'taxme 'fai]

1. 4 THE CONCEPT OF NUCLEUS IN MG

The notion "nucleus" is clearly central to the O'Connor and Arnold (1973) treatment of English intonation and the basic question must now be raised: is there any good reason to assert that the notion of nucleus applies to MG as well?

After a preliminary investigation of the intonation of MG (Georgountzou, 1989) and from the present work, I do

indeed claim that a satisfactory analysis of MG intonation can be offered in terms of nuclear and prenuclear parts. The concepts of "stressed" and "accented" syllables which were evolved for the description of E intonation, can be applied equally well to MG. Consider the following example:

(7) prin apo merika ˏXRONJA/ ˈkapji rotisan mja omaδa arxiteˑktonon sto ˋDALAS// ("Some years ago, some people asked a number of architects in Dallas" - 31st NSMG).

In the above example (two IG's), the syllables -xro, -ka, -kto and -dal are stressed in the sense that they are beats in the rhythm. Also, the syllables -xro, -ka and -dal are additionally prominent as they initiate a pitch movement (the syllables -xro and -ka establish a rising movement, then all the following syllables are produced on a relatively high pitch, until the syllable -dal which initiates a fall).

According to Dauer (1980:177-178), in MG (as in E) we can distinguish three important correlates of stress, that is, intensity, duration and pitch.

The three correlates of stress have the following characteristics: a. Intensity (loudness) is an important property of stress; even in non emphatic cases, the prominent syllables are heard as being louder than the rest of the syllables of the IG. Dauer mentions (1980:157-159) that those syllables which are stressed appear to be more intense especially when they occur in final position with a falling pitch pattern. She also points out that there seems to be no significant correlation between intensity and pitch. Thus, in the example 7 above, if the nuclear syllable -dal is produced with a low - fall, it will be heard as being less loud than the previous stressed syllables. b. Duration is perhaps a more important factor in MG than it is in E, yet not as important as it is in Italian (see also Chapallaz, 1979). A syllable when stressed is consistently longer than when unstressed, yet the difference between them is not so big as the one maintained in Italian. Dauer claims (1980:138) that this difference is more noticeable when stressed vowels are in final position.

The most important phonetic correlate of stress seems to be pitch; syllables are rendered prominent by pitch movement, or a change in pitch direction, or by a high onset pitch after a pause. In example 7 above the syllables -xro and -dal begin pitch movements. Mirambel (1959) has shown that stressed vowels in MG are related to higher pitch than unstressed vowels.

So far I have avoided the use of the term "nucleus". Instead, I have used the word "prominence" in discussing the main characteristics of intensity, duration and pitch in MG. The reason for doing so is that these three properties do not necessarily refer to the nuclear syllable only but also to other accented (that is, stressed and also pitch prominent) syllables which might exist in an IG. Thus, in example 7 the syllables -xro, -ka, -kto and -dal might be heard as more intense and longer than the rest of the syllables of the two IG's. Also, the syllables -ka and -dal (of the second IG) are of equal rhythmical prominence. Nevertheless, the syllable -dal may be considered more salient in terms of information value because the word "Ντάλλας" is one word

in S's speech which is certain to attract H's attention. The one thing H knows for certain is that "Ντάλλας" is in focus (see example 7). The last accented syllable in the IG regularly has these properties and it seems natural to extend to MG the term "nucleus" already established for E. Thus -dal may be regarded as the nucleus within its IG.

In MG, as in E, it is the case that the nucleus is associated - in Halliday's terms - with new information. In normal/unmarked instances the old information is given right at the beginning of the utterance[8]. Consider the following cases where preceding spoken context made quite clear what was "old" information and what was "new":

(8) o kirios skuras mas LEI
theme/old info rheme/new info
("Mr Skouras is telling us" - 1st NSMG)

(9) i eθuses ine AΔJES
theme/old info rheme/new info
("The classes are empty")

In the above examples the nucleus falls on the last content word and marks the item as important in terms of information value.

In marked instances the situation is different; the nucleus comes earlier since what follows is deaccented because it has been previouly mentioned and therefore, it is no longer new. In the following example the word "kjinimatoγrafus" has been prementioned and it is deaccented:

(10) (meta tin opera kje to raδio siti / fetos anakjenistikan to atikon / to ideal / kje to tropikal//) exume KJALUS kjinimatoγrafus// ("After Opera and Radio City, this year Attikon, Ideal and Tropical were renovated. We have also other cinemas" - 2nd NSMG)

If by "nucleus" then is meant the last accented syllable within the IG, the choice of the word in which this syllable occurs being related to information focus, then MG appears on the face of it to have something very similar to what is found in E.

1. 5 THE FUNCTIONS OF NUCLEUS IN MG

It appears that the general rule applying to MG is the same as in E: the nucleus is placed on the last lexical item, unless there is a special reason for not doing so (but see also chapter 6 on tonicity of negative statements in MG). This item is usually a noun, an adjective, an adverb, etc. Generally speaking, it belongs to the open class items. Like E, MG has a constant preference towards accentuation of content words.

It is striking that "event sentences" which with their non final nucleus pose a problem for accounts of nucleus placement in E, show a similar pattern in MG. Notice, however, that due to a greater semantic flexibility, such utterances can be formulated in more than one way:

(11) to TILEFONO xtipai - xtipai to TILEFONO ("the phone's ringing).

(12) to PADELONI su kjeγjete - kjeγjete to PADELONI su ("your trousers are smouldering").

As a further indication of parallelism, vocatives are distinguished in the same way in E and MG:

(13) na su sistiso ton AΔERFO mu, Petro
("Let me introduce you to my brother, Peter"-
35th NSMG).

Overall, it appears that whatever arguments and justifications tend to support the use of the notion "nucleus" in describing E apply with equal force in MG. The usefulness of the concept in describing both form and function of intonation can hardly be doubted for either language.

It is true, of course, that the notion "nucleus" has not gone unchallenged even with respect to E. As in G. Brown, K. Currie and J. Kenworthy's book: Questions of Intonation, (1980).

Focusing their attention primarily on Scottish E, these researchers posed questions such as: "can we have more than one prominence in an IG?", "is it always true to claim that E can undoubtedly be analysed in terms of

pretonic and tonic (nuclear) patterns?"

In a series of experiments which were carried out, Brown et al gave good evidence that NES who were familiar with the term "tonic" and could thus recognize salient syllables, were faced with considerable difficulty in locating the nucleus of a sentence. Moreover, very often their informants chose two or more equal prominences in one specific sentence. These authors were interested not only in locating the nucleus (nuclei) in a given chunk of speech but also in the cues which should be used so as to identify the tonic. The subjects were always asked to identify tonic words rather than syllables. No IG division was suggested or assigned to these sentences. In all cases, subjects were allowed to assign more than one tonic within a sentence with no limit on the number of tonics.

The main points of the conclusions that Brown et al drew from the above experiment can be summarised thus (1980:145, 146, 147): 1. Most judges chose the last lexical item as tonic (unless another item was heavily marked in the sentence). 2. In every case considerable

variation was observed among the judges with regard to nucleus placement. 3. American and Scottish speakers tended to choose the item with maximum pitch height whereas RP speakers tended towards maximum pitch movement.

1. 6 BRIEF CRITICISM OF BROWN, CURRIE AND KENWORTHY (1980)

The Brown - Currie - Kenworthy experiments are clearly intended to challenge the notion of nucleus. However, their results are open to criticism.

I believe that the main problem with Brown et al's experiments emanates from the criteria they employ for the identification of the nucleus; they have wrongly assumed that the nucleus is the most prominent/salient syllable in the IG (the same point is expressed by Couper - Kuhlen, 1986: 19). It was reasonable that their informants would underline more than one word as prominent, since they had generally asked them to identify prominences. Then, the experiments regarded all prominences as tonics and they concluded that E (and

especially Scottish E) cannot be analysed in terms of nuclear and pre - nuclear parts.

However, most judges showed preference towards accentuation of the last lexical item (Brown et al, 1980: 143, 144) showing that a criterion other than simple prominence was being applied. Additionally, the sentences were concocted examples (involving clefting and pseudo - clefting) deliberately chosen to provide difficulties in identification of nuclear prominences.

Treatments of E intonation continue to employ the concept "nucleus" (Cruttenden, 1986, Couper - Kuhlen, 1986) showing the importance and usefulness of the concept in the study of the intonation of E, despite the criticisms of Brown et al.

1. 7 THE INVENTORY OF THE ENGLISH AND GREEK NUCLEAR TONES

As E and MG appear to bear considerable intonational similarities (see also previous pages), an attempt is made in the following pages to describe the nuclear tones that both languages exhibit according to the nuclear tones presented in O'Connor and Arnold (1973). Some deviations of the above mentioned system were considered inevitable, especially with regard to the description of the Greek nuclear tones since, occasionally E and MG were found to have different realizations of nuclear tones (see also "Intonation marks/symbols").

The nuclear tones of broad RP

1. Simple falling: a. low - fall, b. high - fall
2. Simple Rising: a. low - rise, b. high - rise
3. Bidirectional: a. rise - fall, b. fall - rise,
c. rise - fall - rise
4. level
5. Compound: fall plus rise

The most frequent Greek nuclear tones are the following (see also Waring, 1976: 19 - 21):

1. Simple falling: a. low - falling, b. high - falling.
2. Simple rising: a. Low - rising, b. high - rising.
3. Bidirectional: a. rising - falling, b. falling - rising c. rising - falling - rising.
4. level.

NOTES TO CHAPTER 1

1. See also Crystal (1969a:206) and Brown, Currie and Kenworthy (1980:46) on criteria for identifying IG's.

2. The whole word which carries the nucleus is capitalized in all the examples given in this work. This avoids the problems of syllabification which arise when the attempt is made to capitalize only the nuclear syllable.

3. The word "rule" should be understood as a general guideline useful for pedagogical purposes.

4. For the rhythm of MG see also Malikouti - Drachman (1980), Fourakis (1986), Nespor and Vogel (1986), Botinis (1989), reviewed by Arvaniti (1990).

5. As in E, stress in MG is lexically specified. Nevertheless, in MG stress conforms to a "trisyllabic rule" according to which lexical stress is allowed on any one of the last three syllables of a word but no further to the left (Joseph and Warburton, 1987; Malikouti - Drachman, 1980).

6. Dauer (1980:363-372) gives a detailed discussion of the characteristics of Greek rhythm. She finally concludes that MG is close to E in terms of rhythm, being more stress-timed than syllable timed. The following diagram is from Dauer (1980:370):

stress - timed ←----------→ syllable - timed

E MG SP FR JAP (mora - timed)

(SP: Spanish, FR: French and JAP: Japanese).

7. Dauer (1980:371) also expresses the same idea by claiming that some of her informants exhibited a clear tendency towards stress - timing. This tendency - according to her - was more obvious in fast speech as well as in subjects who came from the Northern part of Greece. Dauer also noticed that unstressed vowels such as /i/ and /u/ were often devoiced or omitted when they occurred between voiceless consonants as for example in: ['zitisa] or ['akusa].

8. The point of view expressed here is opposed to Waring's claim according to which MG is not analysable in nuclear and pre - nuclear parts mainly because the item which could be considered as the nucleus is not always the most important part in meaning (1976:107). To illustrate his point Waring gives the following example:

i ma/ria δja/vazi sto /alo δo/matio (the intonation marks belong to Waring, 1976:105). According to the author: "there is no reason to suppose that the word "δωμάτιο" has a more important meaning than "άλλο". Waring's argument can be easily proved wrong; the particular example he gave is indeed difficult to transcribe intonationally due to the fact that the rising and the unfinished falling movement of the nuclear syllable are realized in two different words (alo as well as the syllable δο- carry the rise while the fall is delayed until the syllable ma- of δomatio). However, in terms of information it is obvious to a NSMG that δomatio belongs to the H's background knowledge. Therefore, the word which carries the main load in terms of information is "άλλο". The candidate nucleus which Waring rejects is thus in the tail in the type of analysis to be employed here.

2. TONICITY AND PRAGMATICS IN E AND MG

Tonicity involves a choice regarding the placement of the nuclear syllable within the IG.

Recently, there have been made various attempts to extend pragmatic theories so as to take account of intonation and equally, to apply the methods of pragmatic theory to the understanding of intonation.

The theory of "Relevance" (Sperber and Wilson, 1986) enables us to look afresh at the role of intonation in utterance interpretation. Instead of "old" and "new" information, Sperber and Wilson (1986) introduced the terms "background" and "foreground" information respectively. These terms do not commit S to any precise assessment of the knowledge he/she shares with H but allows him/her to formulate his/her utterance in a way which will simultaneously reflect his/her assumptions of what is appropriate to present as background or foreground for the benefit of H. Obviously, this approach views prosody as a bridge to link an utterance to its context, narrowing down the range of possibilities associated with it. In a communication situation, S will often need to guide H towards the relevant context for processing an utterance. S may need to refer to information which is

old for both of them but which needs to be brought to H's attention to set the scene for subsequent exchange. Sperber and Wilson state that "background" and "foreground" should not be considered the same as "old" and "new" information. Background information contributes to what is relevant only indirectly and it is not necessarily given or presupposed. Similarly, foreground information is information that is relevant to what has been mentioned before in a coherent context and it need not be new. Despite Sperber and Wilson's claim, it seems to me that it is not quite clear how distinct old or new information is from background and foreground respectively. In fact, there seems to be a close relationship between them. Perhaps what Sperber and Wilson meant really is that background and foreground information are somehow broader terms semantically including (though not necessarily always) the terms given and new. Nevertheless, the important point is that intonation makes explicit the distribution of background and foreground information. Thus, H is led to a relevant set of assumptions against which to calculate the contextual effects of the foreground information. Consider the following example taken from Sperber and Wilson (1986):

(14a) Peter: "Would you drive a MERCEDES"?

(14b) Mary: "I wouldn't drive ANY expensive car".

(15a) Petros: θa oδiγuses mja MERSEDES?

(15b) Maria: δen θa oδiγusa KANENA akrivo aftokinito.

What becomes obvious from the above is that the word "Mercedes" is considered to be new information. Therefore, the first S (Peter and Petros) placed the nucleus there. In the second sentence the H who answers deaccents the last lexical item (car and aftokinito) as well as the previous word which is the next to the last lexical item. This is so because both of these words are considered as given information. Yet, in strict discourse sense, the concept "expensive car" and akrivo aftokinito is rather new in the sense that it has not been mentioned before. Nevertheless, in a given culture anyone can easily regard the above concept as background information because it is clearly inferrable from Peter's and Petros' reference to a Mercedes; making use of their encyclopaedic knowledge about expensive cars, they included Mercedes as such. What somebody can infer, thus, is that:

a. A Mercedes is an EXPENSIVE car and

b. i mersedes ine AKRIVO aftokinito.

Notice the nucleus placement on the item "any" and kanena makes us assume that speakers of both languages share the same "implicated premise" (that is, sentences a and b), otherwise communication could not be achieved in one of the two languages. Therefore, the implicated conclusion in both languages is the following:

c. Mary would not drive a Mercedes and d. i Maria δen θa oδiγuse mersedes.

As we observe, Peter and Petros straightforwardly progress from premises a and b to conclusions c and d This progression crucially depends on the accent distribution of 14b and 15b. It is striking that the accent pattern is the same in the two languages, lending further support to the claim that MG may be analysed as having a nucleus analogous to the E one.

I consider the above mentioned pragmatic framework an important guide for tonicity. Sperber and Wilson's theory provides a "rationale" for the information structure of utterances replacing all such

distinctions as given - new, topic - comment, theme - rheme and focus - presupposition with the principle of relevance itself.

3. TONALITY IN E AND MG

INTRODUCTION

As Couper - Kuhlen (1986:73) states, the first attempts to define a prosodic unit were probably made by Henry Sweet who wrote: "The only division actually made in language is that into 'breath groups'. We are unable to utter more than a certain number of sounds in succession without renewing the stock of air in the lungs" (1906:45). The same point of view is held by Lieberman (1967) who stated that human beings produce and perceive intonation in terms of "unmarked" and "marked" breath groups, resulting from the interaction of the respiratory and laryngeal muscular systems. The unmarked breath group - according to Lieberman - is innately determined and it is characterized by a terminal fall in subglottal air pressure which takes place when the volume of air in the lungs has finished. In the marked breath group, the laryngeal muscles work to increase tension and there is a non falling fundamental frequency.

However, Lieberman's claims have been strongly criticized by Ohala and Hirano (1967) who showed that laryngeal muscles are actively involved in the control of pitch during phonation, so changes in subglottal

air pressure can account for a very small part of pitch variation. Therefore, Couper - Kuhlen rightly states that "breath group" is not a very reliable prosodic unit since although some prosodic divisions are accompanied by breath taking, they do not necessarily all arise this way.

I take the view that Ohala and Hirano's claim is true especially as far as natural spoken E is concerned; a person speaking slowly or deliberately tends to make many more pauses than are required for breathing. It is for this reason that I have avoided to use the term breath group and I have adopted the term IG throughout the present work.

As Cruttenden (1986:35) states, almost all analysts operate with the concept of IG's. Nevertheless, no clearcut guide is given on how the division between IG's is signalled. Two points of view have so far appeared concerning the division of IG's.

The first point of view states that phonological criteria are sufficient to indicate where an IG can be spotted (Crystal, 1969a :206).

The second point of view is represented by those who believe that there is a certain amount of difficulty in identifying IG's in spontaneous speech (Brown et al, 1980:46).

Cruttenden (1986:36) adopts a less absolute point of view, acknowledging that not every IG boundary has a corresponding pause. He also rightly points out that in spontaneous speech (particularly conversation), our task becomes more difficult due to the fact that this type of speech is full of false starts, hesitations, slips of the tongue (and, therefore, repetitions) etc. Eventually, he argues for internal as well as external criteria for the identification of IG boundaries.

The most important criterion in the demarcation of IG's is that of a pause. Cruttenden (1986) distinguishes two types of pauses: a. the "unfilled pause" and the "filled pause". According to him (1986:37-38), pauses seem to occur at three places in utterances: 1. at major constituent boundaries (ie between clauses and between subject and predicate). Pauses of this type generally indicate an IG boundary. 2. before words of high lexical content. This type of pause occurs before a minor constituent boundary within a noun phrase, verb phrase, adverbial phrase, etc. 3. after the first word in an IG. This is an

example of error of performance.

All cases discussed above can be regarded as subcategories of one kind of pause. This is the type that Bolinger calls "tentative pause" and Allan (1986b:26,27) considers as associated with a sense group. I will call this type "brief pause". According to traditional literature, this pause is usually shorter in length than the final pause. Although there are no exact correspondencies between intonation and punctuation, it is often the case that brief pauses are related to semi - colons, commas, etc and are somehow optional, in the sense that S may prefer to pause or to continue his/her chunk of speech. The other type of pause is the one that Bolinger calls "final pause". I have decided to use the term "real/full pause" instead. This pause corresponds to a clearly audible period of silence and it often corresponds to a full stop. Lastly, any change in the direction of pitch could be considered as an additional cue for signalling an IG boundary.

In broad terms, tonality in MG is similar to what has been described for E: rather long sentences are fairly common in MG and division into IG's is a natural and inevitable process. Again, we can distinguish two important pauses, namely a brief pause (which probably

corresponds to a comma or a semi - colon in conventional Greek punctuation) and a full pause (which broadly corresponds to a full - stop).

3. 1 SOME SYNTACTIC CRITERIA FOR IG DECISIONS IN E AND MG

Although the IG cannot be identified with a unit such as sentence or clause, most authors agree that syntactic criteria are involved in tonality matters. In the following pages, I have attempted to find out whether Crystal's criteria for tonality (1975:17-21) which were designed for contemporary E, work also for MG. The English examples were devised to resemble those given by Crystal and then whenever possible translated into MG:

1. Structural parallelism (Crystal; 1, p 17): According to Crystal, we put / after each component, as in:

(16) I saw Mary / visited Peter / was at the doctor in the afternoon / and arrived home late//
(16a) iδa ti Maria / episkeftika ton Petro / imuna sto γjatro to apoγevma / kje eftasa spiti arγa//

I consider this type of boundary obligatory especially in long sentences as the above.

2. Coordinate clauses: (Crystal; 2, p 17): Put / after each constituent:

(17) He asked me my name / and I answered quickly//
(17a) me rotise to onoma mu / kje tu apadisa sta γriγora//

Crystal claims that the same is true for other coordinate clauses introduced with "whether"/"either" - or", etc. This boundary appears to be more optional than the one appeared in case 1. There are some categories which are exceptions to this tendency the most important of which is ellipsis: no boundary is placed if the subject of a coordinate clause is elided and a sequence of coordinate verbs is produced:

(18) She will write and read//
(18a) θa γrapsi ke θa δjavasi//

3. Subordinate clauses, (Crystal; 3, p 18):

i. Adverbial Initial: put / after a clause:

(19) When you see him / ask him his address/
(19a) otan ton δis / zita tu ti δiefθinsi tu//

ii. Adverbial Medial: put / on either side:

(20) The woman in the red car / if you must know / is my sister//
(20a) i γjineka sto kokjino aftokinito / an θes na kseris / ine aδerfi mu//

iii. Final adverbials: Put / before a clause. The boundary is obligatory if the adverbial status of the construction needs to be made clear:

(21) Tell her / to simplify things (ie "in order to simplify things" as opposed to: (21a) Tell her to simplify things// which is ambigous between adverbial and object. Similarly, in MG ambigous sentences such as the ones below become semantically distinct through tonality means:

(21b) pes tis na aplopiiθun ta praγmata// ("tell her that things should be simplified") and:

(21c) pes tis / (γja) na aplopiiθun ta praγmata// ("tell her / (so) that things will be simpified").

iv. Nominal as subject: put / after the subject:

(22) What she'll do with that / nobody knows//

(22a) ti θa kani m ekjino / kanis δen kseri//

v. Medial - non restrictive : put / on either side:

(23) My sister / who lives in Paris / sent me a letter//
(23a) i aδerfi mu / pu meni sto parisi / mu estile γrama//

vi. Final - non restrictive: put / before:

(24) He likes milk / which is good// ("the fact that he likes milk is good")
(24a) He likes milk which is good ("he likes only the good milk")

Similarly, in MG disambiguation of such cases is often achieved through tonality. Nevertheless, it is of primary importance that there should exist agreement between the gender and the number of the noun of the first clause with the gender and the number of the adjective of the second clause. Therefore, tonality is an additional means of disambiguation here:

(24b) tu aresi to γala / pu ine kalo ("He likes milk / which is good")
(24c) tu aresi to γala pu ine kalo// ("He likes milk

which is good")

Had we picked a different example, however, disambiguation of the pair could have been achieved obligatorily through morphology and the presence/absence of an IG boundary would not have been so crucial for disambiguation purposes in MG:

(24d) tu aresi i ɣlosoloɣjia / pu ine perieryo//
(24e) tu aresi i ɣlosoloɣjia (/) pu ine perieryi//

vii. Appositive: put / after:

(25) The thing is / that he doesn't study at all/
(25a) to θema ine / oti δen meleta kaθolu//

In both languages the IG boundary is rather optional.

4. Medial Parenthetic clause (Crystal; 4, p 18): put / on either side:

(26) He wrote a book / I mentioned it to Peter yesterday/ which was a breakthrough//
(26a) eɣrapse ena vivlio / to anefera ston petro xtes / to opio itan apokalipsi//

5. Direct speech (Crystal; 5; p 18): put / after the reporting verb:

(27) Then he said / "I'm really interested"//
(27a) tote ipe / "enδjaferome praɣmatika"//

6. Comment clauses (Crystal; 6, p 19):

i. Initial: put / after:

(28) As you probably know / I'm leaving tomorrow//
(28a) opos isos kseris/ fevɣo avrio//

ii. Medial emphatic: put / on either side:

(29) And Peter / you know / came too//

No boundary is used in MG.

iii. Final emphatic: put / before:

(30) Today everything depends on money / you know//
(30a) simera ola eksartonde ap to xrima / kseris//

Nevertheless, if the above examples are not taken as emphatic, the boundary is not necessary.

7. Tag utterances (Crystal 7, p 19): put / before:

(31) She's pretty / isn't she//

(31a) ine omorfi / δen ine//

8. Vocatives (Crystal B, p 19):

i. Initial vocatives:

(32) Mary / is anything wrong//

NSMG would rather prefer to omit the IG boundary. In final position no boundary is used.

9. Adverbials (Crystal 2, p 19):

i. Initial adverbials: put / after:

(33) Personally / I don't agree with her policy//

In MG the boundary is usually omitted, although the comma is maintained in written speech.

ii. Medial adverbial: put / on either side:

(34) He did not say / of course / that his mother was ill//

In MG the first boundary is omitted but the second is rather obligatory.

iii. Final adverbial: put / before:

(35) They are married / happily//

In the above example the / is necessary; otherwise the sentence has a different meaning. In MG, however, no boundary is used:

(35a) perase eftixos// ("He/she passed, fortunately")

10. Adverbial sequence (Crystal 3, p 19): put / after each element:

(36) He approached me quietly / thoughtfully / and without much hesitation//
(36a) me plisiase isixa / skeftika / kje xoris poli δistaγmo//

11. Multiple heads (Crystal C; 2, p 19):

i. Separate premodification: put / after the first head:

(37) I bought her some red roses / and carnations//

(37a) tis aɣorasa merika kokjina triadafila kje ɣarifala// In both examples the words "carnations" and "ɣarifala" are not necessarily red.

ii. Separate postmodification: put / after the first head:

(38) The sweaters / and the shirts from India / are placed on the shelves//
(38a) ta pulover / kje ta pukamisa ap tin inδia / iɲe topoθetimena pano sta rafja//

In 38 and 38a only the shirts (and pukamisa) are from India.

iii. Non restrictive apposition: put / on either side of the apposed phrase:

(39) Mr Smith / the doctor / has gone to Paris//
(39a) o kjirios smiθ / o ɣjatros / exji pai sto parisi//

(As opposed to "Mr Smith the doctor ..." and o kjirios smiθ o ɣjatros ... which is restrictive and implies an apposition with "Mr Smith the teacher" and o kjirios smiθ o δaskalos).

iv. Noun phrase tags: put / before:

(40) She's a good writer / this woman//

Despite what Crystal states, I think that this boundary is rather optional in E while in MG is rather avoided.

12. Multiple modification (Crystal 3, p 20):

i. Premodification, general adjectives: put a / after each component except the last:

(41) She was a nice / quiet / but rather stupid girl//
(41a) itan mja orea / isixji / ala malon xazi kopela//

As Crystal points out, the term "general" (adjectives) excludes certain adjectival categories which display order - restrictions (colour, nationality, etc) and do not take a boundary. The same exclusion applies to MG: "The big red house" - "to meγalo kokjino spiti".

ii. Postmodification in subject: put / after the subject:

(42) The woman in the yellow trenchcoat / is my sister//

(42a) i ɣjineka me to kjitrino aδjavroxo / ine i a δerfi mu//

iii. Postmodification in passive agent: Put / before agent:

(43) A woman has been shot dead / by a vicious killer//

In MG the boundary is rather optional, especially if the sentence is not very long:

(43a) mja ɣjineka skotoθike (/) apo enan esxro δolofono//

iv. Postmodification in non final object: put a / after the object:

(44) She gave the dress you had bought me / to a stranger//

In MG the boundary is optional:

(44a) eδose to forema pu mu ixjes aɣorasi (/) se enan aɣnosto//

The presentation of the above cases clearly shows that overall E and MG exhibit more similarities than differencies in the treatment of tonality.

4. TONE IN E AND MG

INTRODUCTION

Tone refers to choices in the shape of the pitch movement taking place following the nuclear syllable.

The pitch movement of the nuclear syllable is the most fundamental pitch movement in the IG because it is the one contributing most to the overall meaning of the utterance. Nuclear pitch contours differ according to shape, direction and pitch height; there are also detailed differences typical of tones in individual languages.

In the following pages an attempt is made to describe the English and Greek nuclear tones according to the experimental data of this study.

4. 1 THE DESCRIPTION OF THE ENGLISH AND GREEK NUCLEAR TONES

4. 1. 1 THE LOW - FALL

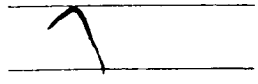
As Bolinger pointed out (1961a), the differences in meaning involved in the use of different simple falls in E seem to be more a matter of gradience than "all or none" distinct meanings. This is why some analysts have proposed only one falling tone with higher and lower allotones (see also Halliday, 1967 and Ladd, 1980). On the other hand, O'Connor and Arnold clearly keep this tonal distinction apart mainly because of the attitudinal differences involved in the above tones.

In terms of its semantic value, a low - fall is nothing more than a "serious" high - fall. Generally speaking, a low - fall in E usually expresses one of the following feelings: disappointment, anger, misfortune, indifference or even hostility.

In MG, the low - falling tone occurs more frequently than in E. It is mostly associated with completion and definiteness. Occasionally, S in uttering this tone has an absolute and authoritative attitude.

Although there seem to exist more than one formal realizations of the low - fall in both languages, in E this tone usually takes the form of a smooth glide and if the low - fall falls on a monosyllabic word the vowel (or the diphthong) is often realized in two parts, one at a mid - level tone and one at a low level. On the other hand, MG rather prefers an abrupt fall (with no division of the monosyllabic word, see also Waring, 1976: 338-339). Consider the examples below:

(45)



ˌNA

The low - fall in MG

44th NSMG

(46)

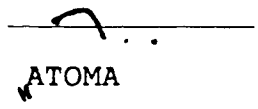
ˌALL

The low - fall in E

9th NES

It should also be mentioned that in MG strong assertiveness is also expressed with a low low - fall whereby S's pitch falls from low to very low level and it is often accompanied with creaky voice. This sound is not as common as the low - fall in MG but it is more common than in E. Consider e.g 47 below:

(47)



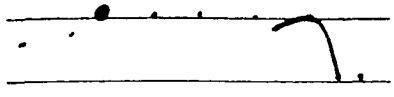
ˌATOMA

The low - low fall in MG

43rd NSMG

Where post nuclear syllables appear, they are produced on a low or very low pitch. Prenuclear syllables are produced either on a low or a high pitch depending on the degree of emphasis S wants to achieve:

(49)

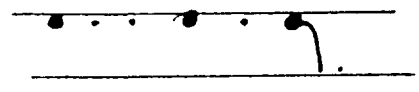


kje paˈreδose to (ˌΓPAMMA)

Pre and Post nuclear syllables in MG

2nd NSMG

(50)



ˈPeter and °Tom are (ˌSTU DENTS)

Pre and Post nuclear syllables in E

7th NES

4. 1. 2 THE HIGH - FALL

The high - fall always bears a higher pitch and it might be heard as longer and louder than the low - fall. In E, the use of the high - fall denotes a friendly, animated and more involved attitude by S than the use of the low - fall. Cruttenden (1986:120 - 121) claims that variations in the height of falls reflect variations in involvement (the heighest the starting point, the heighest the involvement). Similarly to low - falls, the English high - falls very often denote definiteness and finality and together with low - falls, high - falls have been traditionally classified as "proclaiming tones".

In MG, the high - fall is also associated with assertiveness but not necessarily with friendliness and animation. Also, it is questionable whether the Greek falling tones are always proclaiming tones since my data showed that some non - complete clauses were produced with a falling tone. It is also the case that the use of some high - falls indicates emphasis and surprise.

As far as the shape of this tone is concerned, the following points can be stated: in both languages the high fall starts at the top of S's pitch range or lower

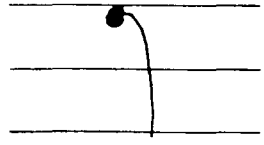
(but not lower than the middle line of S's pitch). Variations in the abruptness of the fall are to be observed in both languages. The ending point may reach a low or a fairly low level; in fact, both languages exhibit "stylized falls" (Cruttenden, 1986:53) where the fall usually ends somewhere between the middle and above the bottom range of S's voice.

(51) 

ˋNA

The high - fall in MG

12th NSMG

(52) 

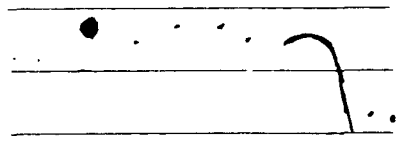
ˋWHY

The high - fall in E

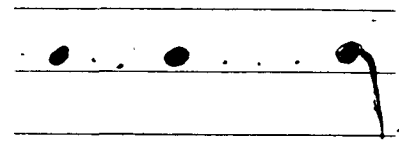
10th NES

If other syllables precede the nuclear one they may be produced either on a low or a high pitch. In both languages the appearance of high pitch in the prenuclear syllables is more frequent. An additional characteristic of these syllables is that they are rarely produced on a level pitch; my research showed that usually each one of them is produced at a lower pitch than the previous one and the nuclear syllable often starts at a lower pitch than the first prenuclear syllable. On the other hand, O'Connor and Arnold's prenuclear syllables are produced on the same level and this description is to my opinion

unrealistic.

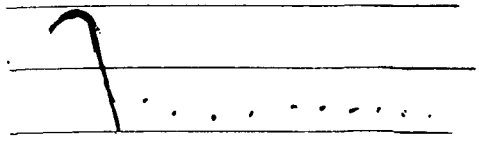
(53) 

i zoi tus kjiluse (ˋI)REMA 27th NSMG

(54) 

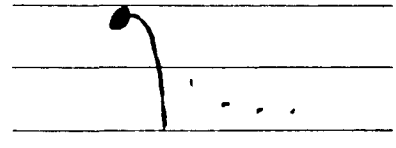
She ˈwanted to ˈrun out of the (ˋBUILD)ING 9th NES

Post nuclear syllables have no fixed position and they vary between smooth and abrupt glide:

(55) 

(PO ˋLI) liγa praγmata exun alaksi 27th NSMG

Post nucl syllables in MG

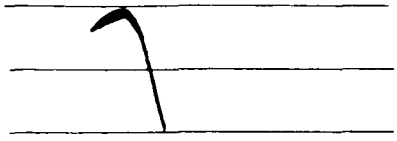
(56) 

(ˋWELL) in their exams 9th NES

Post nucl syll in E

If NES and NSMG feel the need to give emphasis in their speech they may choose to use an extra high - fall. This allotone usually starts at a higher pitch level and tends to reach low pitch quickly. Also, my data showed that in both languages nuclear syllables produced with an extra high - fall were generally heard as louder than nuclear syllables produced with a high - fall:

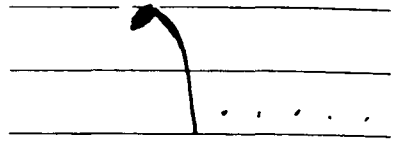
(57)



ˬPAS 13th NSMG

Extra high - fall in MG

(58)



ˬDON'T talk to him like that 12th NES

Extra high - fall in E

4. 1. 3 THE LOW - RISE

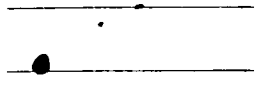
This nuclear tone occurs fairly frequently in both languages. As with falling tones, the distinction between low and high - rising tones is made on the basis of involvement (Cruttenden, 1986:121). The most important meaning of rising tones in E and MG is incompleteness.

The low - rise in E is associated with different uses depending on the type of pre nuclear and post nuclear patterns with which the nuclear syllable is combined. For instance, the use of a low - rise preceded by a high pitch accent often denotes that S has a patronizing attitude. It has also been stated (O'Connor and Arnold) that the low - rise is the typical tone for yes/no questions and of open listing.

In MG, the low - rising nuclear tone is typically associated with incomplete statements. It is also associated with open listing. Unlike E, NSMG tend to avoid producing statements which express a complete meaning with a low - rising tone.

In terms of pitch, the low - rise typically starts around the bottom line of S's range. The ending point may differ in the two languages: in E, the rising movement usually stops at the middle line of S's pitch range (although it may end a bit lower or higher). In MG the ending point of the rise has a less fixed position and it varies between mid - high to high (or very high) pitch[9]:

(59)

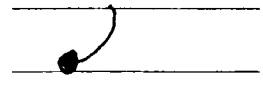


,GRO TIMA

23rd NSMG

Low - rise in MG

(60)



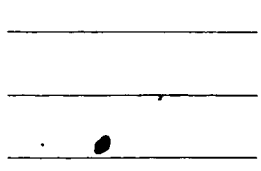
,JOHN

9th NES

Low - rise in E

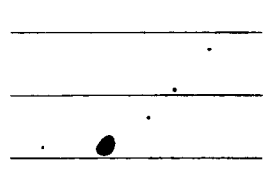
In both languages pre - nuclear syllables can be produced either on a low or on a high pitch and in every case different attitudes are involved. In E if post - nuclear syllables are many they can reach the top height of pitch range. On the other hand, in MG the low - rising tone

rarely occurs with a long tail. Nevertheless, as mentioned above, it can reach a high level:

(61) 

MO,KETA

23rd NSMG

(62) 

A,FRAID of something

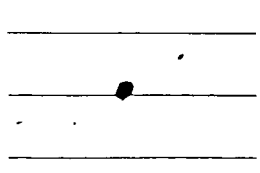
9th NES

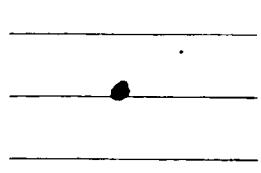
4. 1. 4 THE HIGH - RISE

Cruttenden states (1986:108) that unlike low - rises which contain a set of local meanings that are difficult to specify, high - rises have a clearcut set of semantic contexts where they may occur. The basic meaning of the high - rise is that of an "echo"/"repeat" question. Occasionally, this tone conveys a note of incredulity. When used in incomplete clauses or in listing of items a note of impatience is conveyed in both languages. Lastly, in E, the high - rise can also be used in yes/no questions and statement questions.

The high - rise has a similar pitch configuration in the two languages, namely a starting point at about the middle line of S's pitch and a finishing point reaching high or very high level. All the intervening syllables

(as well as any post - nuclear syllables) follow a rising movement:

(63) 

(64) 

(ta tra) 'PEZJA

23rd NSMG

'ARE (you)

10th NES

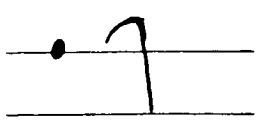
4. 1. 5 THE RISE - FALL

This complex tone occurs more often in MG than in E. Cruttenden (1986:100 - 101) states that the rise - fall "can be grouped semantically with two simple falling tones...". This is so because - according to him - the rise - fall involves the sense of finality, completeness and definiteness that all falling tones involve, particularly when used with declaratives. With regard to MG, Cruttenden's claim is not totally true since in MG the rising - falling tone is the commonest tone used in yes/no questions[10]. Nevertheless, both languages express feelings of involvement, excitement, surprise, incredulity, challenge, etc through the use of this tone (see following pages). Bolinger (1974:136) has tried to combine the meaning of impressiveness and challenging by describing only one meaning of the rise - fall. According

to him, this meaning is "...something sustained as overriding opposition".

The formal realization of the rise - fall is not always similar in E and in MG: In E, two types of rise - fall have been observed; the difference between the two types is chiefly one of timing. In the first type, the highest point of the pitch pattern occurs late and the fall to low pitch is heard during the tail syllable(s). In the second type, the accented syllable bears a rise and low pitch is reached by the first syllable of the tail (O'Connor and Arnold, 1973, Gussenhoven, 1983a). Therefore, when there is no tail the nuclear syllable carries the rise as well as the fall so there is an audible prolongation of this syllable. When there is more than one syllable after the nucleus the nuclear pattern is extended over the tail:

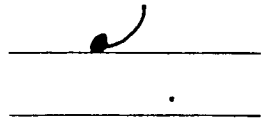
(65)



E ∧XAMS

First type of rise - fall

(66)

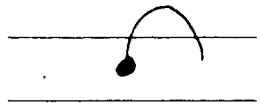


∧TREMBLING

Second type of rise - fall

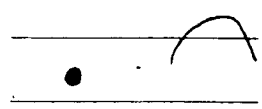
The Greek yes/no questions occur with one type of rise - fall which is quite different from the two types of the English rise - fall discussed above.

The Greek rising - falling tone has the following formal characteristics: The word with the nuclear syllable may be the last in the IG (unmarked tonicity); in such cases the nuclear syllable has a low starting point then the pitch is raised to about the middle level to be followed by a fall which may or may not end at a very low pitch. The striking point is that the nuclear syllable may not carry the rising movement and the rise might be sustained until the last syllable of the tail. If there exists no tail the rise is carried by the prolonged vowel of the nuclear syllable. The last vowel of either the tail or the prolonged nuclear syllable also carries the fall (either complete or non complete). In fact, it sounds as if the nuclear syllable is not at all the one in which word stress is carried (see also Waring 1976:341). This is the only instance where word stress does not coincide with nuclear prominence in MG:

(67) 

PI ^NAS

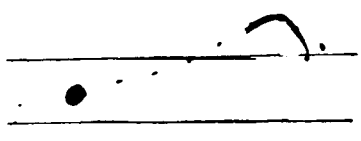
rise - fall without a tail - 3rd NSMG

(68) 

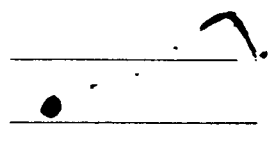
^θIMOSES

rise - fall with a tail - 9th

The nucleus may also fall on a non final item and this is broadly related with contrastive stress. In such cases, the rising movement starts with the nuclear syllable, the rest of the syllables continue the rise and the fall starts with the last stressed syllable of the IG. The remaining (unstressed) syllables (if any) are produced on a falling pitch. Usually, the fall is not complete:

(69) 

(tis) ^MILISES (γja ton ∘petro) - 9th NSMG

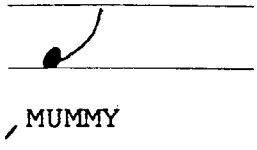
(70) 

^EFERES (ta•psonja) 9th NSMG

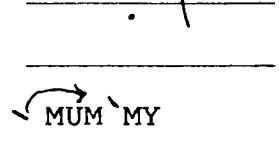
Therefore, a sharp difference between the two languages can be observed at this point; in E we are accustomed to thinking that much of the pitch movement coincides with the syllable which carries the word stress. Nevertheless,

there surely exist cases in E where the above point is not true. Indeed it can happen that the syllable which is known to be the stressed syllable lacks some or all of the properties which would ordinarily mark it as such. I have recently heard a child calling her mother "mummy". The first time she called her she used a low - rise tone where the stressed syllable mum- coincided with the nucleus. The second time the child called her mother a falling tone was used but with the syllable i- carrying the fall. Thus, it is not necessary for the syllable to be stressed as well as to carry the tune:

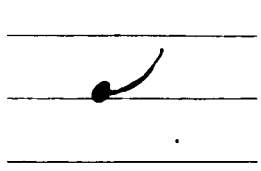
(71)



(72)



Similarly to E, the rise - fall is also used in MG when S wants to express surprise, excitement and incredulity. In such cases, the rise - fall has a similar shape to the one employed in E (in particular, it resembles the second type of the English rise - fall discussed above):

(73) 

^TAKSI (tu)

English - like rise - fall in MG

4. 1. 6 THE FALL - RISE.

This is another bidirectional tone which occurs fairly frequently in both languages. In fact, the fall - rise seems to occur more frequently in E.

Cruttenden (1986:110) states that a fall - rise is associated with two sets of meanings: The first set refers to meanings such as reservations, contrast, contradiction, etc. Contradiction is closely related to polite correction while in reservations one usually finds the word "but" following. All the above meanings are mainly combined with declaratives. The second set of meanings - according to Cruttenden - are self - justificatory, appealing (associated with declaratives) and warning (mostly associated with imperative constructions. However, the self - justificatory and appealing meanings do not really seem to be properties of the fall - rise but of the fall - plus - rise tone. In fact, Cruttenden seems to consider fall - rises and

fall - plus - rises as (more or less) functionally indistinguishable tones. Since I do not think that this is the case, I consider the above meanings as semantic properties of the fall - plus - rise tone.

There is a limited amount of evidence suggesting that the English (RP) fall - rise should be subdivided into at least two types, high and low. Based on my own personal observations, I assume that the high - fall - rise is used in echo questions and the low variant in polite corrections. Also, a close relationship seems to exist between fall - rise and stylization. As stated in 4. 1. 2, two pitch levels are involved, one higher than the second. These two pitches correspond approximately to the starting and finishing point of a fall - rise. In fact, they are often used indiscriminately (fall - rise and stylized fall) in calls and salutations. The purpose of these contours is to establish routine contact; the participants are not in face to face communication when using the stylized fall and this may be a difference with the fall - rise. As Gussenhoven (1983:40) states, this stylized fall may substitute for a fall - rise taking the meaning of warning.

Lee (1956a:71) states that the fall - rise is often used in syntactically negative constructions. In such

cases the fall - rise has a selective meaning which is juxtaposed to the negative meaning of a negative sentence which is produced with a fall. The fall - rise is also the commonest nuclear tone in expressing excuses and apologies in E.

Lastly, the fall - rise is considered to be a referring tone in E and it is used for expressing incompleteness and continuation. In such cases, the fall - rise occurs in the subordinate clause of the compound/complex construction.

This tone is common in MG too but not as common as in E.

The use of the falling - rising tone in MG is very common in incomplete utterances where H is informed that there is more to follow in S's speech. Therefore, the falling - rising is a referring tone in MG too.

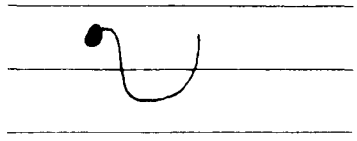
Closely related to the referring meaning is the meaning of reservation; S, in uttering such an utterance expresses his/her doubts and quite often there follows the word "αλλά" (ala "but") in his/her speech.

The falling - rising tone also occurs in echo questions in MG.

Another use of the falling - rising tone in MG is to give the utterance a polite and friendly attitude towards H. What sounds lacking in liveliness, unfriendly or maybe rude when produced with a falling tone, sounds more friendly and polite when heard with a falling - rising tone. This is why Greek commands when produced with a falling - rising tone are changed into requests. The same polite attitude is carried in the Greek wh - questions when produced with a rising - falling tone.

In terms of shape, the two languages have rather similar realizations. In E, the fall - rise is characterized by a phonetically prominent fall followed by a phonetically less prominent rise on one and the same syllable, if there exists no tail. In such cases, the range of nuclear pitch might be narrowed and this realization bears considerable formal similarities to the stylized fall (see e.g 74 below). If there is a tail, the rise is spread over it. In particular, as O'Connor and Arnold (1973:13) state, the fall takes place during the accented syllable and the rise takes place on or from the last stressed syllable of the IG (see example 75 below):

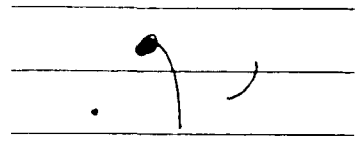
(74)



ˇILL

fall - rise with a non complete fall and without a tail 7th NES

(75)

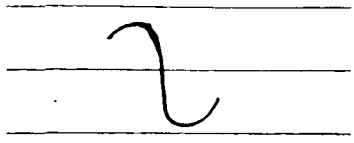


TOˇMORROW

fall - rise with a tail 7th NES

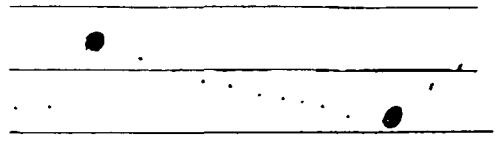
In MG, the falling - rising tone has the following characteristics: a. a high starting point which always starts on a stressed syllable and carries the pitch initiation, b. the nuclear syllable performs a gradual movement (compare/contrast this with the rather abrupt movement of the English fall - rise), c. the rising movement is usually carried by the last stressed syllable of the IG which is produced at a very low pitch, d. if there exist other syllables after the last stressed syllable of the IG the rising movement is carried by them, otherwise the last stressed syllable also carries the rise.

In wh - questions, the rising part of the falling - rising tune seems to be rather predictable as the rising movement usually starts on the last stressed syllable of the IG. Consider the following examples of the Greek falling - rising tone:

(76) 

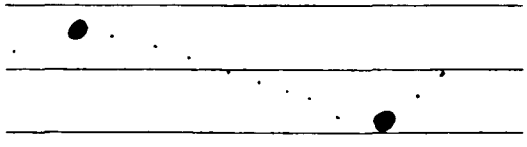
PE˅RIFIMO

falling - rising realized in one word 13th NSMG

(77) 

POLI˂KANALO (stereofoniko) SI˃GROTIMA[11])

falling - rising realized in different words 44th

(78) 

ΓΙΑ˂ΤΙ (tora protimun tin tile)˃ORASI

falling - rising in wh- questions 39th NSMG

4. 1. 7 THE RISE - FALL - RISE

This is a multi - directional tone which can be found in both languages. It occurs less frequently than the two bidirectional tones mentioned above.

Cruttenden (1986:122-123) states that a rise - fall rise is a product of delay of the fall - rise nuclear tone. Equally, fact, the rise - fall - rise can be seen as a combination of a fall - rise and a rise - fall.

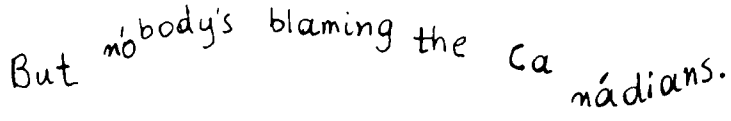
The meaning conveyed through this tone is as complex as its form: the overtone of contrast of the fall - rise is combined with emotional tension which characterizes the rise - fall. Crystal (1969:218) refers to the rise - fall - rise as one of the two tones where its second element is more prominent than the third. Nevertheless, he does not include any extensive comment on the semantics of this tone. Bolinger (1986:94)) mentions that the rise - fall - rise is frequently used to express contradiction in negative constructions though this meaning is not conveyed in affirmatives. I believe that emotional intensity is the most important meaning of this tone since it appears with every sentence produced with a rise - fall - rise, irrespective of its syntactic form.

In MG, the rising - falling - rising tone is associated exclusively with marked emotional state. It also carries a questioning and challenging overtone mainly because its use is closely related with echo questions (see examples below).

Bolinger (1986:246, 248-252) refers to three different realizations of the rise - fall - rise, basing his description on Liberman and Sag (1974). He accepts that there exists some variation in the production of the unaccented syllables but the accented syllables have a

rather fixed position. Generally speaking, the production of rise - fall - rise - according to Bolinger's description - takes the following steps: a. Initial Rise - all the preceding syllables (if any) are produced on a low pitch, b. high pitch of an unaccented syllable coming immediately after the nuclear syllable, c. gradual or immediate fall of the post - nuclear syllables, d. the final accent is at a low pitch, e. the rising movement (which has started on the last accented syllable) continues by the post - nuclear syllables (if any).
The three types of rise - fall - rise copied from Bolinger are depicted below:

1) CB+C:



2) CB+AC:

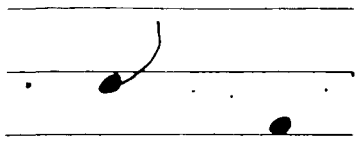
3) CB+B:

I would like to make two points about Bolinger's description; first, in all three versions the nuclear syllable with the rise is at a lower pitch than the next syllable. This is just one possibility for the production

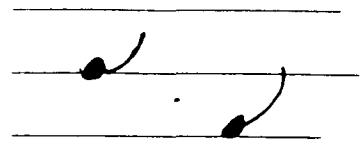
of rise - fall (see also the two types of rise - fall discussed previouly. Alternatively, the syllable no- could be sustained and the syllable bo- could be produced at a lower level, that is the fall could start from the nuclear syllable. Also, in the second version, the syllable which initiates the rise is produced on a relatively high pitch and the pattern looks like fall - rise rather than a (low) rise.

Kingdon (1958:137) mentions that in the rise - fall - rise (tone V in his terminology) the stress gradually decreases during the initial rise and fall. Nevertheless, the final rise is characterized by a new increase of stress. Therefore, he concludes the two rises are more salient than the fall, something which is demonstrated by the production of the fall in a rapid tempo.

The rise - fall - rise has a more or less similar formal realization in MG. Its basic characteristic is that it is usually produced in one word (contrary to E where very often the overall pattern is spread on different words). Consider the following examples from both languages:

(79) 

(you) DIDN'T (need to mention it!)

(80) 

TO ГРАТЕ) ("he/she wrote it!?)

4. 1. 8 THE LEVEL

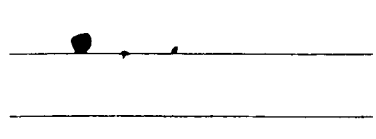
Level nuclear tones are not characterized by pitch movement. Nevertheless, they can be distinguished from non-nuclear static tones by their greater length and loudness. In an IG with preceding prenuclear syllables, the nuclear syllable with the level tone is more prominent than all the preceding syllables.

In E (RP) and in MG high and low level nuclear tones are possible, depending on S's pitch range. Nevertheless, the most frequent is the middle level. Couper - Kuhlen (1986:94-95) states that there is some sort of equivalence and correspondence between level tones and and rises. In fact, there has been observed a certain difficulty in deciding whether a nuclear syllable is uttered with a rise or a level tone. On the other hand, level tones may be functionally identical to falling tones (for instance, in listing items - see also examples below). Nevertheless, according to Crystal (1969) and

O'Connor and Arnold (1973), middle level tone is an independent tone conveying meanings such as boredom , sarcasm, daily routine and maybe irritation. These overtones are also conveyed in MG. Brazil, Coulthard and Johns (1980) state that level tones are useful for marking breaks in the message which are not potential completion points; such types are often hesitations or false starts. Couper - Kuhlen though (1986) believes that level tones are hard to identify because in lengthening and pausing non - nuclear static syllables become particularly prominent.

The formal characteristics of the middle level tone are as follows: the pitch starts high or low (depending on the type of prenuclear syllables which may appear). On the nuclear syllable the pitch starts at about the middle line of S's pitch and remains there until the end of the IG. If post nuclear syllables exist they are produced at the same (middle) level:

(81)

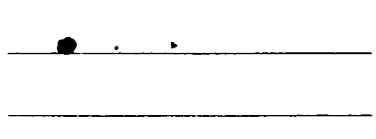


> VOTANA ...

Mid level in MG

24th NSMG

(82)



> STRAWBERRIES ...

Mid level in E

11th NES

4. 1. 9 THE FALL PLUS RISE IN E[12]

This is a very important (compound) tone in E (RP). However, it is problematic and a great deal of literature has been devoted to the need to distinguish between the compound fall plus rise and the bidirectional fall - rise. A number of authors have not considered them as two distinct tones but as identical or, anyway, as allotonic patterns (see Lee, 1956a, Faure, 1962 and Schubiger, 1958). Nevertheless, most intonologists do distinguish two different nuclear tones.

Kingdon (1958:44-45) calls the fall - rise an "undivided falling - rising tone". He claims that its fall is similar to a high - fall in terms of the degree of stress and pitch range, while the rising part may vary in terms of stress and pitch range within high and low - rising tones. On the other hand, the compound fall plus rise is described as a divided falling - rising tone. He also mentions that the latter is used (or preferred) only when the nucleus begins early enough in the utterance and the division of the tone gives extra salience to those words which "usher in the rising element". On the whole, no real distinction is achieved. Ladd (1980:157) refers to "fall - rise in double nucleus sentences". What he actually means is sentences where one nucleus is a fall

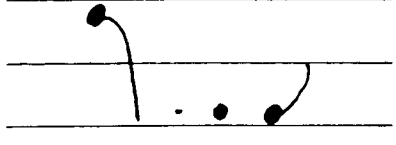
and the other fall - rise. He also agrees with Kingdon in the idea that the basic formal distinction between the two is focused on the dichotomy of early/late nucleus (fall plus rise associated with early and fall rise with late nucleus).

A very comprehensive account of the distinction of the above tones is included in Sharp's work (1958). He states that in fall - rise we only have one prominence whereas in fall plus rise there exist two prominences. Also, in fall plus rise the rising part always takes place on a stressed syllable and the intervening syllables are said to be produced on a very low pitch. Sharp also states that fall plus rise may fall to a lower pitch than fall - rise and in long utterances the rise of the fall - rise takes place immediately after the fall. However, the above difference can at times be overriden and both patterns may be used indiscriminately for one another.

O'Connor and Arnold (1973:29) also talk extensively about these contours claiming "they are very different in their meanings". First, they state that short sentences are not troublesome in that if the fall and the rise occur on the same syllable we are dealing with fall - rise. On the other hand, the fall and the rise take place on different words in all cases of fall plus rise and the rise must

occur on a stressed vowel. In the latter case, the rise should be conveyed by a stressed vowel. Therefore, short utterances such as "Do it" can only be produced with a fall - rise because the word "it" is not (normally) stressed. Longer constructions are more troublesome but even so O'Connor and Arnold have proposed the following criteria for distinction: a. In the compound tune the fall has a wider range: its starting point is on a higher pitch and its fall is lower. On the contrary, the fall - rise has an overall quicker shape with the fall on a lower pitch and the rise on a higher pitch. b. In the fall - rise the intervening syllables (between the fall and the rise) are not always produced on a very low pitch. Their rising movement may take place immediately after the fall. c. In the fall - rise all stresses after the fall may be suppressed or weakened. In the fall plus rise this does not happen:

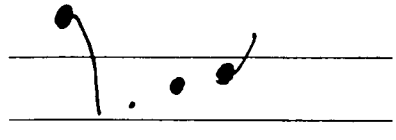
(83)



ˋThat's a•nice ˊdress

fall plus rise

(84)



ˇThat's a•nice ˊdress

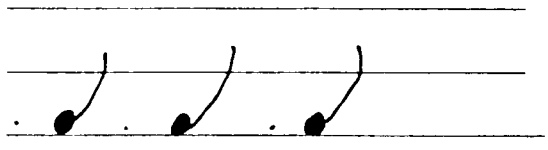
fall - rise

However, as O'Connor and Arnold accept, the above differences may fail to operate and the two tunes may appear phonetically identical. This constitutes an example of neutralization. I consider the difference in meaning between the two tunes very important. Thus, in e.g 83 S expresses his/her admiration about a beautiful dress he/she sees. On the other hand, in e.g 84 the meaning is "that's a nice dress but not the previous one you showed me". Therefore, one should keep in mind that the fall - rise is associated with contrast/contradiction while the fall plus rise is usually related to sentences where no contrast is involved. Also, the item which carries the rise is considered background information in fall - rise and foreground information in fall plus rise. Sharp (1958) claims that with fall plus rise the utterance conveys "no implication" while with fall - rise the meaning of the utterance is "contrastive". Similarly, Lee (1956a:71) states that the fall - rise implies "contrast", "signalling out" and "concession" and with this tone a "but", "though" or an "even if" is often implied. He also accepts that the sentence which carries the fall - rise may not indicate contrast but "....what is reasonably certain is that the fall - rise tone tends to bring out latent contrasts where it is not obviously a contrast - pointing device. Halliday (1967) makes the important observation that fall - rise is often related

to negative constructions while fall plus rise usually occurs with statements which convey "neutral commitment". M. Ferreira - Cruz (1983:77) summarizes the meanings that the two tones convey in the following way:

FALL - RISE	FALL PLUS RISE
dissociative	additive
selective; contrastive	major + minor
("focus within a set")	information point
	("new" + "given"
	/"semi - given"
	info.
reserved; implicatory;	final; neutral
concessive; hesitant;	commitment.
marking continuity	

9. In MG the low - rising tone may also start at a low level and finish high. This pattern is particularly popular among children, especially in listing items:



e/pta o/kto e/nja... ("seven, eight, nine...").

10. MG is not the only language which uses a rise - fall in yes/no questions. Other languages such as Sicilian Italian, Russian, Czech, Serbo - Croat, Hungarian and Rumanian exhibit similar tones (but see also Cruttenden, 1986:164, for restrictions of the application of the rise - fall in Russian and Czech).

11. For the description of the Greek falling - rising tone a broader transcription was adopted: when the falling and the rising movements are carried on the same word the fall - rise (**v**) diacritic was used. When the fall and the rise were spread in different words the fall plus rise (**\.../**) diacritic was used.

12. I have concluded that no fall plus rise tone exists in MG. This conclusion was reached because in MG there exist no identical sentence pairs distinguished through fall - rise and fall plus rise. On the other hand, from the phonetic standpoint the Greek falling - rising tone bears some resemblance with the English fall plus rise: the rising part almost always starts on a stressed syllable, the intervening syllables between the fall and the rise are usually produced on a low pitch and the rising movement is not likely to start until the stressed syllable which carries the rise. On the other hand, the fact that usually it is the last stressed syllable which carries the rise classifies the Greek falling - rising tone more of the English fall - rise type.

5. THE EXPERIMENTAL PART

INTRODUCTION

This chapter deals with the methods used for the collection and analysis of the data of this study.

Experimental investigation was a necessity especially for the description of the intonation of MG[13]. As the intonational system of O'Connor and Arnold is tested in MG for the first time, experimental work offers important information in this area. The experimental part was also essential in order to check O'Connor and Arnold's intonational system through the performance of NES and for the testing of the hypotheses of this study.

5. 1 CONTRASTIVE ANALYSIS (CA), ERROR ANALYSIS (EA) AND INTERLANGUAGE (IL)

As this is a comparative/contrastive study, it may be useful to discuss two important approaches to language learning with implications in foreign language teaching.

First, the mechanistic/behaviouristic view of language learning considered errors as failures to apply the right habit in the right linguistic context. This point of view is represented by the contrastive

analysts. According to them, the first language (L1) plays a particularly crucial role in the process of foreign language learning. In particular, CA took the position that learners' mother tongue interfers with the acquisition of the foreign language. The word interference is a key word in CA together with the word transfer[14]. According to contrastive analysts, foreign language learners tend to transfer structures and habits from their mother tongue to the foreign language because it has been observed that prior learning has consequences for subsequent learning. The hypothesis that "the learning of task A will affect the learning of task B" (that is, the learning of L1 will affect the learning of L2) is well known as the hypothesis of transfer and constitutes the psychological foundation of CA (see also Ellis, 1965 and James, 1980). According to this view, those elements which are common to both languages are expected to facilitate the process of foreign language learning, whereas in cases where differences between the two languages exist, foreign language learners are expected to face difficulties in the process of learning. The former is an example of positive transfer while the latter is an example of negative transfer (interference).

On the basis of the above points, various claims have been made concerning the pedagogical implications of CA. The most important claim states that a comparison of the structures of the mother tongue and the foreign language should reveal areas of difficulty for the foreign language learners. Therefore, by predicting these areas potential errors could be avoided with materials drawn up in accordance with guidelines for lesson planning (see also Burt et al, 1982: 97).

With the advent of Generative Grammar in the 1960's CA was strongly criticized by many linguists. In particular, critics of CA have argued that interference is only one source of errors and that, therefore, over-concentration on CA is unprofitable (see also Fis iak, 1981:218). They also claimed that some of the potential problematic cases never result in errors while other types of errors, not predicted, do turn up.

According to the mentalistic - cognitive view of language learning, the only valid analysis of languages in contrast is the one that takes into account the actual errors made by foreign language learners. The main points of the traditional EA are stated by Fisiak (1981:221-222). Here, it would be sufficient to point out that EA gives us - among other

things - the chance to realize how and which errors can be explained by CA.

The above opposing tendencies viewed errors as negative steps impeding the process of foreign language learning. However, soon after the development of CA and EA, a new approach towards foreign language errors appeared. The linguists who defended this approach (Selinker, 1969, Nemser, 1970, Corder, 1971) viewed errors as essential parts of foreign language learning which should not be avoided. A crucial notion which emerged from this approach is the term interlanguage (IL), although, as Fisiak (1981:224) points out, the distinction between EA and IL is not always very clear. According to Selinker (1969), "interlanguages" are all intermediate systems that a learner constructs in the process of learning the foreign language. Corder (1967) stated that the foreign language learner resembles the child learning his/her mother tongue in that both of them are struggling to acquire the language by working out successive hypotheses of the target language (TL). Therefore, learners' errors should be regarded as inevitable steps in the process of target language learning.

All these three notions continue to be important in contrastive language studies.

Despite the criticisms that CA has suffered (but see also James, 1971:53-68), it has managed to survive. This - I believe - is mainly thanks to the fact that CA has offered an important theoretical framework in linguistically describing two or more languages. On the other hand, we should not deceive ourselves in believing that all errors can be explained in terms of interference. We also need EA as well as IL in order to explain foreign language errors in depth. Foreign language teachers should expect errors from their learners as these are nothing but a proof of learners' actual progress.

5. 2 THE HYPOTHESES

The hypotheses stated in the present study have been based on CA and the hypothesis of transfer.

The background to the hypotheses is my own experience as one who learned E as a foreign language. In terms of production, it was observed that although I was trying quite hard, my English did not resemble the native English performance, in comparing absolutely similar structures. In terms of perception, I

occasionally faced certain difficulties in understanding the meaning (not lexical) of some sentences produced by NES. Moreover, when NES themselves were listening to me they were faced with occasional problems of understanding. The latter case refers especially to sentences where English syntax does not provide cues for semantic interpretation (tag questions, confirmatory questions, etc). In the beginning, I was constantly thinking that I might have used a lexical or syntactic device in an inappropriate way. However, soon I realized that this was not the case. The intonation classes I took at the Phonetics Department of University College London helped me to realize that often it was my intonation that created problems to the NES. It was then that I started to give particular importance to intonation in everyday communication. It must also be stated that the intonation of E is not taught to NSMG.

The above observations can be briefly stated as follows:

1. a. The intonation of MG is in many ways different to the intonation of E.

b. NSMG do not have the chance to be exposed to English intonation courses when learning E.

The above two observations lead to the formulation of the first hypothesis: NSMG are expected to face problems in producing as well as perceiving the intonation of E.

The second hypothesis is closely related to the first one: the elements which are intonationally distributed in a similar way in the two languages are expected to facilitate the process of mastering the intonational system of E. On the contrary, where intonational differences between the two languages can be observed, it is expected that NSMG may face difficulties in producing/perceiving the intonation of E.

Consequently, and according to CA, they may use a Greek intonational device when they want to produce a sentence in E because they may not be aware of the appropriate intonational choice NES would make in the particular sentence. To give an example: both languages make use of contrastive stress in cases where the last lexical item is regarded background information:

(85) Now she was even more sure that she would`NOT get the job// (4th NES).

(86) perisotero apo aɣapi ɣja tin eθusa omos / ˋPIRE to risko// (33rd NSMG) ("...but mostly because of his love for the cinema he <u>took</u> the risk").

The above examples reveal that E and MG show similar effects upon tonicity of shared knowledge. Therefore, NSMG are expected to be able to proceed to deaccentuation of the rightmost item in similar to the above cases. On the contrary, the following examples constitute cases where the two languages exhibit intonational (tonal) difference:

(87) You will ˇFALL

(88) θa ˋPESIS

As seen above, the two languages make use of different tones in order to express warnings. Consequently, NSMG are expected to face difficulties in producing/perceiving warnings in E. As a result, they may use a falling (instead of a falling - rising) tone in producing warnings in E, as they may transfer their own intonational habits into E. In terms of perception, NSMG are likely to be insensitive in interpreting English warnings.

Third hypothesis: proficiency in the intonation of E by NSMG is expected to be proportional to experience and training of the Greek informants in the English intonation.

Informants were deliberately chosen to come from different linguistic levels in E. Therefore, it is expected that although none of my informants have training in English intonation, the Greek informants who have made extensive use of E will probably manage to be more successful with the intonation of E. The terms "exposed to" and "extensive use" need to be explained: in a country like Greece where E is not a second or a formal language, lingua franca etc (as it is the case in some places in India or Africa), a Greek learner of English has limited chances to use E extensively. In fact, the only occasion where NSMG can use E is at the language classes offered in schools, private institutes of language learning or the University (English Department of Language and Literature). Students of the latter group have the chance to use E extensively and communication in classroom between them and university teachers is mostly in E. On the other hand, learners of the various language institutes use E only through textbooks and do not usually communicate with their teacher in E (unless of course, the teacher is

a native English speaker). Apart from students of English language and literature, however, there also exist a number of Greek learners of English who have the chance to use English at home[15] (English friends, relatives, etc). Others may also need to learn English because they plan to work in an English community. This latter type of learner may also read English newspapers, listen to the English mass media or they may also visit England often. In accordance with this hypothesis, data was collected concerning the language background and experience of the informants to be correlated with their intonation performance.

Fourth hypothesis: some unexpected intonational choices (transferred from MG) are likely to cause more trouble than others.

For instance, the use of the rising - falling tone in confirmatory questions may block communication between NSMG and NES and thus, it is considered to be a more severe intonational error[16] than for example, the use of an IG boundary before a narrative tag which is a non - English intonational choice but does not cause serious problems to communication. This hypothesis applies to all informants of my experiments as all of them are susceptible to all types of intonational errors.

Fifth hypothesis: a fair number of errors are likely to occur which cannot be explained on the basis of CA, nor easily explained at all.

As the setting where the experiments took place was far from being motivated by genuine communicative needs, the informants may have felt embarrassed and shy. This psychological state might have also been reinforced by the installation of the laryngographic equipment (see also following pages). Also, the subjects may have felt tired especially when approaching the end of the experiments and they might have committed errors due to such factors.

5. 3 PRESENTATION OF THE EXPERIMENTAL DESIGN

5. 3. 1 THE TESTS

The experimental material can be divided in two parts: part one, Greek and part two, English. Each part consisted of two sections: production test and perception test. Section one, the production test, consisted of three basic units:

UNIT ONE: the text

Like other types of speech, written speech has its own intonational characteristics (see also P. Tench, 1987:28). Although it does not represent spontaneous speech, it was decided that a text in E and in MG should be included. The main reason was that in a carefully chosen text one has the advantage of being able to test a variety of sentences and illocutionary forces.

The informants were asked to read the texts as if they were narrating an event to a friend in face to face conversation. Both texts included brief dialogues and subjects were asked to perform these as naturally as possible; indeed most of the informants seemed able to do this. The Greek text (given to NSMG) was about ten minutes long written with all the necessary punctuation marks and according to monotonic rules[17]. The English text was easier than the Greek text (about five minutes long, with shorter sentences and simple language) so as to avoid potential lexical or other types of difficulties which might cause NSMG additional strain and embarassment. Both texts were written in colloquial/informal style to motivate informants to produce the text in their normal, everyday tone of voice. All informants were given about ten minutes to prepare the texts.

UNIT TWO: test sentences[18]

Subjects were presented with 46 sentences in MG and 47 sentences in E. Some sentences were grouped in pairs to test tonality and tonicity. Informants were asked to produce various sentence types such as questions, negative statements, commands, polite questions etc. The informants gathered the illocutionary force required from punctuation and from explanations which were provided in certain cases. Occasionally, a brief context was also given so that the subjects could more easily understand the force of the sentence. As with unit one, all informants were asked to produce the sentences in their normal tone of voice trying to imagine that they were performing the particular force. The sentences were written in an informal style so as to encourage conversational renderings.

Many authors have claimed that constructed stimuli should not be used because they come out of context. According to what they claim, every bit of speech is related to context. Therefore, such controlled/constructed material is rather unrealistic. Only a few names of authors who hold the above view will be mentioned here (for a thorough investigation of the relevant literature the reader can refer to M. Ferreira Cruz, 1983:149-150). The most important

opponent is Scuffil (1982:160-161) who claims that even when there is no context subjects tend to create one and if this is the wrong one we will get the wrong results. Crystal (1969a) and Delattre (1966) also talk in favour of authentic material.

There are undoubtedly certain problems with constructed materials. This is why I have tried to find a balance between the two sides in including a small context in some sentences. However, I agree with Ferreira - Cruz that in dealing with non-native speakers it is necessary to include controlled data. The advantage of this type of data is obvious: the experimenter can manipulate in such a way that all the desirable areas of potential difficulty (and errors) may emerge. In this way, information about linguistic (here intonational) interference can be obtained (see also Ferreira - Cruz, 1983:150).

UNIT THREE: spontaneous conversations

All informants were asked to have a spontaneous and friendly conversation with the experimenter for about 10 minutes. Sometimes, another person was asked to contribute to the conversation so that the whole setting would be more natural. Subjects were asked to speak as naturally as possible about anything they

wanted. It should be stated that there was no spontaneous conversation in E with NSMG. The main reason for this was that as the experimenter was a non NES, she would have faced many difficulties in creating a non-contrived setting.

The basic aim of the spontaneous conversation was to check whether stylistic change potentially triggers intonational changes.

The aim of the perception test was to find out whether the informants would be in a position to associate a particular nuclear tone with the expected illocutionary force (more details about the perception test are given in chapter 7).

All material in production and perception tests was typed; punctuation marks were indicated in the production tests but not in the perception test and the informants had to rely exclusively on intonation.

5. 3. 2 COLLECTION AND ANALYSIS OF THE DATA

Due to the particular interest in intonation, measurement of the Fundamental Frequency (Fx) contours was regarded as essential.

The collection of the data was achieved by portable laryngographic equipment which was carried in Greece and was used for the 44 NSMG. The 15 university students were recorded in one of the classes of the department of English language and literature while the rest of the Greek subjects were recorded in my house. NES were recorded in one of the phonetic laboratories of University College London.

The laryngographic equipment consisted of the following parts: a. a pair of electrodes, b. a SUPERSCOPE cassette recorder type CD-330 (MARANTZ), c. a THANDAR oscilloscope, d. a portable laryngograph and e. an AKG D-109 microphone.

All parts of the equipment were placed on a relatively large table. In particular, the oscilloscope was placed above the laryngograph and in the centre of the table. On the left - hand side there was placed the tape recorder while on the right - hand side the microphone was placed. The microphone was adjusted

according to each informant's height (when seated) and it was placed not too close to the informants' mouth so as to avoid the hissing sound that is usually produced when the microphone is placed too close to the mouth (about 40 cm distance from the mouth).

Each subject was comfortably seated having next to him/her the experimenter and any other person who might have contributed to the spontaneous conversation.

The pair of electrodes were put on the informants' neck at the point of the vibrating vocal folds. The electrodes had a strap which could be adjusted to each informant's neck. The laryngograph signal (Lx) was displayed on the oscilloscope. Both speech and Lx were recorded simultaneously.

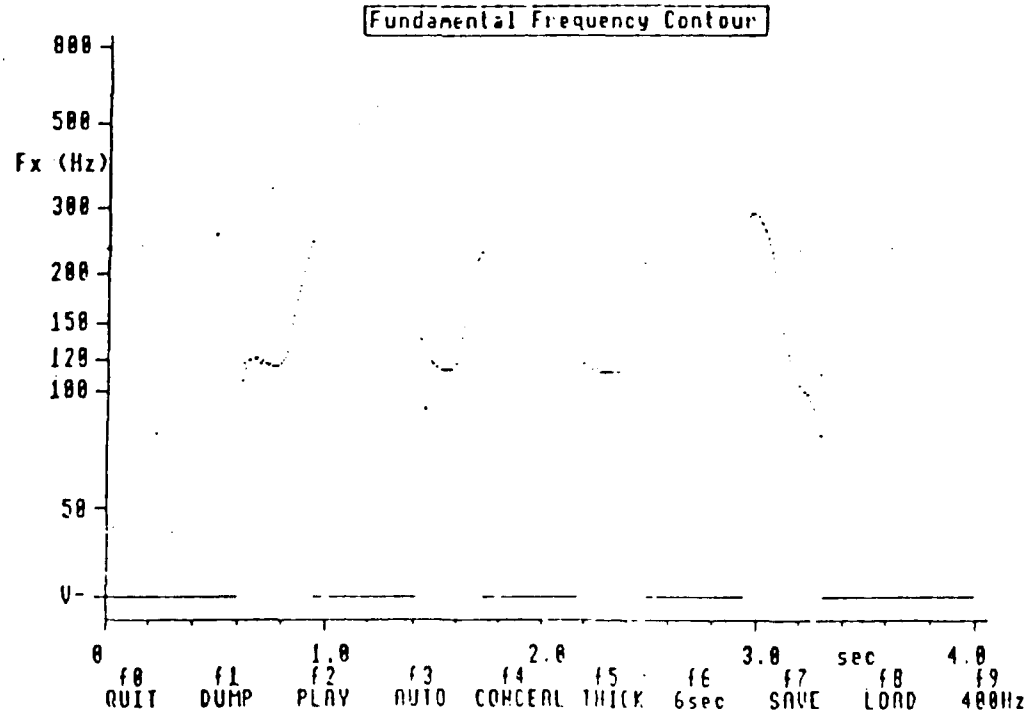
The listening sessions for the perception test were played on the same (MARANTZ) tape recorder via a loudspeaker. Subjects were generally in twos.

The instrumental analysis of the data was done in the laboratories of the Phonetics Department of UCL. The following equipment was used: a, tape recorder (MARANTZ, model CD-330), b. oscilloscopes c. a voiscope (laryngograph), d. a BBC microcomputer. The

software used to extract and display fundamental frequency, F(x), was especially developed for use with the model B BBC Microcomputer. The F(x) information was printed on a dot - matrix printer.

In order to acquire and print the F(x) contours the wanted parts of the recordings were identified by listening and using the oscilloscope.

The computer screen presents the F(x) contours in the following way: two axes appear; the vertical is a logarithmic scale measured in frequency from 30 Hz (voiceless) to either 400 or 800 Hz. The horizontal is a linear scale measured in time; it is possible to have a scale of 2, 4 or 6 seconds duration, as the need arises. Consider example 89 below:



The auditory analysis of the data was achieved with an ALBA double deck cassette recorder where all the tapes were played and transcribed in terms of tonicity, tonality and tone. Generally speaking, the experimenter has relied more on the auditory/impressionistic analysis, whereas the instrumental analysis had a more or less subsidiary role; it was particularly in cases where the auditory analysis ran into difficulties (especially in the description of tone).

5. 3. 3 THE INFORMANTS

44 NSMG and 12 NES (control group) were used for the present study. All NSMG were speakers of the standard (general Athenian) pronunciation and they were intonationally naive. They were aged between 14 and 26 years old. Most of them were school or university students. The NES could be described as speakers of near RP. All of them had received intonational training at the Phonetics Department of UCL. They were 2nd and 3rd year speech science students of the Phonetics Department of UCL. Evidence from the control group was regarded as essential as through it potential deviations from O'Connor and Arnold's intonational system could be detected.

NOTES TO CHAPTER 5

13. H. Waring (1976) and K. Dauer (1980) also use experimental evidence; Waring includes no instrumental analysis in his data whereas Dauer has indeed made some measurements but mainly with regard to the Greek rhythm and so she includes very few points on the F(x) of the Greek contours.

14. For a thorough study of transfer theory see Jakovits (1969), Caroll (1968) and Lee (1968).

15. Cases where one of the parents is E have been excluded because the children of such parents are bilingual speakers and not foreign language learners.

16. The word "error" should be used with considerable caution in intonational analysis, since it is difficult to specify what is intonationally wrong and what is right. This why I have used the word "error" only when necessary in the present study. Instead, I have decided to use the word "unexpected" more often. The word "error" is always mentioned in EA studies, as for instance in Corder (1971). It is from this author that I have also borrowed the term "grave" error.

17. Before 1982 the Greek orthography used mainly two accents, that is, the acute (oksia) and the circumflex (perispomeni). It also used two breathing marks, namely the psili ("ʔ") and the δasia ("ʿ"). After 1982 the polytonic system was abandoned and it gave way to the monotonic system. Accordingly, the circumflex accent as well as the breathing marks fell into disuse. Only the acute accent is currently used and there exist specific rules with regard to the type of words which should take this accent (Triandafillidis Grammar, 1982:23).

18. This part of the test has been influenced by M. Ferreira - Cruz (1983:364-366). Nevertheless, in the present study respondents were given more freedom in the choice of answers, including an open choice answer in which the subjects supplied their own interpretations.

6. ANALYSIS OF RESULTS - PRODUCTION TESTS

INTRODUCTION

This chapter presents a detailed analysis of the results obtained from units one, two and three of the Greek and English data (production tests).

Presentation is tabular and each table has: NSMG with the Greek data, NSMG with the English data and NES (with the English data). One number comes immediately after the titles given above representing the total number of sentences collected from each area. The rest of the numbers stand for the amount of sentences which consist of a particular characteristic in terms of tonicity, tonality and tone (ie, sentences with the nucleus on the negative particle, sentences with the nucleus elsewhere and sentences with the nucleus on the negative particle plus elsewhere, etc). In areas where these numbers and percentages reveal striking intonational differences between E and MG statistical evidence is also provided. In particular, the chi - squared test and the t - test have been used with the BAS statistics program in order to check the significance of the numbers given in specific tables. In all cases the results obtained from NSMG were compared with the results obtained from NES.

6. 1 TONICITY OF NEGATIVE STATEMENTS

6. 1. 1 NSMG WITH THE GREEK DATA

As far as MG is concerned, there were collected 3 negative statements from the text, 8 negative statements from the test sentences and a non-fixed number of sentences from the spontaneous conversation, from each subject. Sentences of the latter type were chosen on the basis of simplicity (no complex/compound tokens were transcribed) and non - indication of contrastive stress (these criteria were maintained for the collection of negative statements from unit one and unit two). Some of the test sentences were preceded by a small context (but this was checked so as not to leave possibilities for contrastive stress in the negative statement).

TONICITY OF NEGATIVE STATEMENTS: NSMG WITH MG

NUCLEUS ON NEG WORD/WORD WITH NEG MEANING	345	58%
NUC ON NEG WORD/WORD WITH NEG MEANING PLUS ELSEWHERE	157	26.5%
NUCLEUS ELSEWHERE	91	15.5%
TOTAL NUMBER OF SENTENCES	593	

Table 1

DISCUSSION

As the results above show, NSMG have chosen to place the nucleus on the words with the negative particle (δen) or on the words with a negative meaning (pote, etc) in the majority of the sentences collected:

(90) ixan molis fiγji γja ti γjermania kjetsi`ΔEN tin perimenan sto aeroδromio// ("they had just left for Germany and so they were <u>not</u> waiting for her at the airport" - 33rd NSMG).

Another choice for the Greek informants was to place the nucleus on the word with the negative particle or the word with a negative meaning as well as elsewhere. This choice implies that the nucleus was placed in two different places, that is, we have to do with a compound tune. Nevertheless, this is not always the case. As observed from the data, the second stress often had a predictable placement, namely the last (usually content) word of the IG. In such cases, we obviously have to do with only one tone (a falling - rising). However, as there also exist cases where the second stress appears before the last (content) word, a broader transcription was adopted with the diacritics of the falling plus rising tone. In both cases the word with the negative particle is nuclear. In example 91 below the rising tone has a rather subsidiary function whereas in example 92 the rising tone indicates a prominent syllable:

(91) ˋΔEN sas evaze omos ˏTOSA ("She did not use to give you so much to study" - 32nd NSMG)

(92) ˋΔEN m enδiaferi na klisto apo ˏTORA kapu (" I don't want to close myself from now somewhere" - 43rd NSMG)

The third choice was to put the nucleus elsewhere, that is, (usually) on the last lexical item. This choice is often related to contrastive stress or emphasis and should be regarded as really marginal for NSMG since all of the examples can be produced with the nucleus on the negative word:

(93) o topos mas itan isixos / isame to xjilja enjakosa δekatesera δen ixje akusti na γjino FONI'KO// ("Our place was peaceful; until 1914 nobody had heard murder" - 33rd NSMG).

(94) ine kati to tromero / δe lamvanume PE 'ΔIA// ("It's something terrible; we don't receive education" - 20eth NSMG).

(95) prin apo merika xronja ixan tsakoθi kje δe MI 'LJODUSAN// ("Some years ago they had quarrelled and they did not talk to each other" - 22nd NSMG).

All the above examples have the nucleus on the rightmost item and it seems to me that they all have emphatic or contrastive interpretations. Had the nucleus been placed on δen, which is possible in every case, the emphasis or contrast would be absent. In a case like example 96 below where 42/44 NSMG had placed the nucleus on δen a contrast of some sort would

definitely be implied (the two negative statements where the nucleus failed to be placed on δen can only be interpreted that way).

(96) o pateras tis 'ΔEN esθanete kala simera// ("Her father does not feel well today").

Lastly, the chi - squared obtained exceeds the normal value at the chosen level of significance. Therefore, there is evidence for a divergence between the theoertical (table 3) and observed (table 1) distributions ($p < 0.001$).

6. 1. 2 NSMG WITH THE ENGLISH DATA

With regard to the English data, 14 negative statements (5 from the text and 9 from the test sentences were collected for NSMG and NES. NES were also tested from the negative statements which occurred in the interview. As with MG, the English sentences were not assuming background information.

TONICITY OF NEGATIVE STATEMENTS; NSMG WITH E

NUCLEUS ON NEG WORD/WORD WITH NEGATIVE MEANING	250	41%
NUC ON NEG WORD/WORD WITH NEG MEANING PLUS ELSEWHERE	39	6.5%
NUCLEUS ELSEWHERE	317	52.5%
TOTAL NUMBER OF SENTENCES	606	

Table 2

DISCUSSION

The above table shows that in the English data NSMG placed the nucleus on the negative word/word with a negative meaning in a large number of sentences, although no background information tending to justify this had been provided. This tendency can be attributed to negative transfer from MG. Nevertheless, as shown from the data above, the majority of statements were produced with the nucleus elsewhere (usually on the rightmost item). In the latter case the performance of NSMG resembled the native English performance. Some negative statements were also produced with the nucleus on the negative word (word

with the negative meaning) plus elsewhere. This choice was characterized by various tendencies: the nucleus was placed on "not" (or on "never") plus on the last word of the IG (not necessarily a content word). In such cases, we had to do with a falling - rising tone (rather than a fall plus rise). Alternatively, two different nuclei were produced, one (mostly often) on "not" (or on "never") and another word (not necessarily the rightmost) of the IG. In the latter case two falls were produced (especially in long sentences). It seems likely that when a falling - rising tone was used on "not" (or on "never") interference is operating since a similar tendency was observed in the equivalent Greek examples (see also above). When there are two separate nuclei there may be a blend of Greek and English patterns, possibly indicating a developmental trend. Consider the following examples:

(97) You have ˋNEVER worked in radio or television before /... (44th NSMG).

(98) She has ˋNOT written a letter to Peter// (36th NSMG).

(99) She has ˋNOT written a letter to ˋPETER (22nd NSMG).

(100) I'm ˋNOT interested in maths (30 th NSMG).

(101) She ˋHARDLY ever remembers her ˋPARENTS// (40 th NSMG).

The nearest to the English performance was the one given by the lower - post lower group whereas university students gave all sorts of different answers; some of them constantly put the nucleus on the negative particles giving a non English performance and showing intonational interference, while some other university students chose to put the nucleus on the last lexical item. The biggest number of unexpected sentences was given by the D - prelower group (see also Table 4 below). Examples 102, 103 and 104 below show some unexpected (according to the control group) versions of negative statements in E by the three groups of learners:

(102) You are ˋNOT hungry// (32th NSMG - D - prelower group).

(103) You didn't ˋTELL me you ˋWOULD go out// (lower - post lower group).

(104) She does ˋNOT know Peter// (17th NSMG - university student).

Lastly, the chi - squared obtained exceeds the normal value at the chosen level of significance, therefore, there is evidence for a divergence between the theoretical (table 3) and observed (table 2) distributions ($p < 0.001$).

6. 1. 3 NES

TONICITY OF NEGATIVE STATEMENTS; NES

NUCLEUS ON NEG WORD/WORD WITH NEG MEANING	29	15%
NUCLEUS ON NEG WORD/WORD WITH NEG MEANING PLUS ELSEWHERE	16	8%
NUCLEUS ELSEWHERE	148	77%
TOTAL NUMBER OF SENTENCES	193	

Table 3

DISCUSSION

As the results show above, most negative statements were produced according to the experimenter's expectations (nucleus on the last lexical item). Occasionally, other versions were produced: for instance, it was surprising that although no

context was given in the sentence " I'm not interested in Maths" some NES placed the nucleus on "not" (2nd, 6th, and 11th NES). In some other times the nucleus was probably placed on the negative particle (or on a word with a negative meaning) because of emphasis as in:

(105) I will \NEVER get this job// (4th, 6th, 8th, 10th, 11th and 12th NES).

Another tendency was to place the nucleus on the negative word plus elsewhere. In such cases, two nuclei were used (two falls or a fall plus rise) or just one tone (a fall - rise on the negative word or on the word with a negative meaning):

(106) I will \NEVER get this\JOB// (1st, 2nd, 3rd, and 9th NES).

(107) She hardly \EVER remembers her \PARENTS// (2nd NES).

(108) She has \NOT written a letter to \PETER// (9th NES).

UNEXPECTED ANSWERS OF THE ENGLISH NEGATIVE STATEMENTS

D - PRELOWER GROUP	93/165	56%
LOWER - POST LOWER GROUP	86/233	37%
UNIVERSITY STUDENTS	105/208	50%
CONTROL GROUP	45/193	23%

Table 4

Lastly, the chi - squared obtained exceeds the normal value at the chosen level of significance, therefore, there is evidence for a divergence between the theoretical (table 3) and observed (table 4) distributions ($p < 0.001$).

a. In the Greek usual negative statements (S, Neg, V, etc) and when no background information has preceded, the nucleus has the tendency to fall on the negative particle or on the word with a negative meaning. In some cases the nucleus can also be placed elsewhere but very often this choice is related to contrastive or emphatic speech. On the other hand, in E the norm is to place the nucleus on the last lexical item in this type of construction. (S, AUX, Neg, V, etc). Therefore, this is an interesting area of comparison/contrast since the two languages distribute nuclear prominence in different ways. From the English standpoint, negative statements in MG would be regarded as denoting contrastive stress.

b. When NSMG produce English negative statements (S, AUX, Neg, V, etc) they often transfer the Greek tendency mentioned in a and they usually put the nucleus on "not" ("doesn't", "never", etc).

c. The tendency mentioned in b is not so striking in NSMG who have acquired a good command of E.

6. 2 TONICITY OF WH - QUESTIONS IN E AND MG

6. 2. 1 NSMG WITH THE GREEK DATA

With regard to MG, 4 wh - questions were collected from the text, 6 from the test sentences and a variable number of wh - questions picked up from the spontaneous conversation of every single speaker. Only direct questions were chosen and very long/complex sentences were avoided. Wh - questions appeared in various places in the sentences and an effort was made to collect as many sentences with the question word in a non fixed position as possible. In this way it could be checked whether tonicity is syntactically determined in this particular area of analysis in MG.

TONICITY OF WH - QUESTIONS IN MG BY NSMG

NUCLEUS ON WH - WORD	54	10%
NUCLEUS ELSEWHERE	47	9%
NUCLEUS ON WH - WORD PLUS ELSEWHERE	419	80.5%
TOTAL NUMBER OF SENTENCES	520	

Table 5

DISCUSSION

The above results show that NSMG have an overwhelming tendency to place the nucleus on the wh word plus elsewhere when producing wh - questions. The nucleus seems to have a highly predictable placement, that is, on the negative word plus on the last word of the IG (whether a content word or not). Therefore, the second stress cannot really be regarded as nuclear. In a limited number of cases the nucleus fell on the next to the wh - word item (verb). Such cases are considered to indicate emphasis:

(109) pos θa ˈPISUME tus θeates na epistrepsun stis kjinimatoɣrafikjes ˌEθUSES// ("How will we <u>persuade</u> the audience to return to the cinema <u>classes</u>?" - 24th NSMG).

(110) ɣjati ˈTORA protimun tin TILEˌORASI// ("Why <u>now</u> do they prefer the <u>television</u>?" - 44th NSMG).

In a number of cases the nucleus fell on the wh - word. In such cases a falling tone was used (see also following pages on the tone of wh questions in MG):

(111) ˈPOTE o ɣamos// ("<u>When</u> is the marriage?" -33rd NSMG)

(112) to proto ˈPOS leɣjete// ("The first one how is it called?" - 1st NSMG)

A very small number of sentences was produced with the nucleus near the end of the IG (not necessarily the last lexical item). As a native speaker of MG most of these examples strike me as errors of performance. Only 1 out of 47 of such examples was produced in the spo ntaneous conversation. The others came from the text and the test sentences. It is possible that the informants who placed the nucleus elsewhere had read the sentences as if they were reading a statement ignoring the directions given to them to make such questions sound real questions, just like in everyday speech:

(113) ti oδiɣjise omos tus epixjirimaties na epenδisun stis aδjes mexri prin apo liɣo ˈEθUSES// ("What lead the enterprisers to invest in the empty until now cinema classes?" - 24th NSMG).

The above example can only be produced when S is reading a part of speech in a public talk, in a news bulletin, etc but not in face to face interaction.

Some other sentences of the data sound totally inappropriate and their presence can be attributed to confusion of the informants or embarrassement:

(114) ti simeni afto ΔILAΛΔI// ("what does it mean?" - 24th NSMG).

Notice that the above example carries a totally different meaning (yes/no question) if the nucleus does not fall on the wh - word.

It is also important to note that in MG a big number of causal clauses starting with the word "γιατί" (γjati) are distinguished from wh - questions with γjati through intonation (tonicity and tone) only ("γιατί" means "why" as well as "because" in MG). Example 115 below was thought to be a statement because it was produced with a falling tone on tileorasi:

(115) γjati tora protimun tin TILE\ORASI// ("Because now they prefer the <u>television</u>").

Therefore, all 47 cases with the nucleus elsewhere should be regarded as deviant.

Lastly, the chi - squared obtained exceeds the normal value at the chosen level of significance, therefore, there is evidence for a divergence between the theoretical (table 7) and the observed (table 5) distributions ($p < 0.001$).

6. 2. 2 NSMG WITH THE ENGLISH DATA

As far as tonicity of wh - questions in E is concerned, 6 sentences were collected, all of them coming from the test sentences (no wh - question was found in the text, except one which consisted of the word "why" only and was excluded from the transcription). NES were also tested from a variable number of wh - questions which appeared in each informant's spontaneous speech. All sentences were simple and direct wh - questions.

TONICITY OF WH - QUESTIONS; NSMG WITH E

NUCLEUS ON WH - WORD	14	5%
NUCLEUS ELSEWHERE	83	32%
NUCLEUS ON WH - WORD PLUS ELSEWHERE	160	62.5%
TOTAL	257	

Table 6

DISCUSSION

As the above numbers show, the Greek informants produced the majority of the wh - questions which appeared in the data with the nucleus on the wh - word plus elsewhere. The overall pattern resembled that of the falling plus rising pattern which appeared in the Greek wh - questions: the falling accent was regularly carried by the wh - word whereas the rising movement was typically associated with the last word of the IG. As a result, many unexpected versions of English wh - questions appeared:

(116) `WHAT are they talking A,BOUT// (2nd NSMG - D - prelower).

(117) `WHICH is the way to the station ,PLEASE// (3rd NSMG - D - prelower).

Placing the nucleus on the wh - word also marked the performance of the Greek informants as non English since in English this choice is related to background information:

(118) `WHERE have you been// (27th NSMG - D - prelower).

(119) \WHY is she so sad today// (21st NSMG - university student).

The third choice (placing the nucleus elsewhere) does not necessarily resemble a native (English) performance in that some of these sentences were not produced with the nucleus on the last lexical item or with a fall, which is the most usual tone in the English wh - questions (see also results on the tone of wh - questions in E by NES, page 163). For instance, the following examples are not in accordance with the English tendency with regard to tonicity of wh - questions:

(120) When are they \LEAVING for \GREECE// (25th NSMG - university student).

(121) Why don't you \LIKE coffee// (22nd NSMG - university student).

(122) Why is she \SO sad today// (12th NSMG - university student).

Examples 120 - 122 cannot really be attributed to negative transfer since in none of them does the nucleus fall on the wh - word.

Lastly, with regard to statistical evidence, the difference between the patterns presented in tables 6 and 7 is so clear that the chi - squared test cannot be meaningfully applied.

6. 2. 3 NES

TONICITY OF WH - QUESTIONS; NES

NUCLEUS ON WH - WORD	6	7%
NUCLEUS ELSEWHERE	75	91.5%
NUCLEUS ON WH - WORD PLUS ELSEWHERE	1	1%
TOTAL	82	

Table 7

DISCUSSION

According to the above results, NES exhibited a regular tendency to place the nucleus on the last lexical item when unmarked information was indicated. Compare/contrast examples 120-122 above with examples 123-125 below:

(123) When are they leaving for \GREECE// (1st, 2nd, 3rd, 4th, 5th, 6th, 11th and 12th NES).

(124) Why don't you like \COFFEE// (1st, 2nd, 3rd, 4th, 5th, 6th, 7th, 10th, 11th and 12th NES).

(125) Why is she so \SAD today// (all NES).

The spontaneous conversation also showed that it was only in contrastive stress that the nucleus moved before the last lexical item:

(126) What \WILL you be doing for Christmas// (the word Christmas is considered background information - 7th NES).

The small number of sentences produced by NES with the nucleus on the wh - word and on the wh - word plus elsewhere should probably be regarded as deviant.

CONCLUSIONS

a. NSMG have a constant tendency to put the nucleus on the wh - word or on the wh - word plus elsewhere when producing wh - questions in MG. The nucleus is placed on the wh - word irrespective of the position of the wh - word in the sentence. If the nucleus is placed elsewhere contrastive stress is often implied.

b. When NSMG produce wh - questions in E they generally transfer the tendency mentioned in a.

c. NES almost always have the tendency to place the nucleus on the rightmost item when producing wh - questions.

6. 3 TONE OF WH - QUESTIONS IN E AND MG

6. 3. 1 NSMG WITH THE GREEK DATA

The sentences used to check the tone of wh - questions in the two languages were the same with the ones used for tonicity of the same type of questions.

TONE OF WH - QUESTIONS; NSMG WITH MG

FALL	61	11%
RISE	2	0.38%
FALLING - RISING	457	88%
TOTAL	520	

Table 8

DISCUSSION

The above results (as well as the results obtained from table 5) show that NSMG tend to produce the majority of the Greek wh - questions with a falling - rising tone. The basic formal characteristics of this tone are as follows:

a. a high starting point which always starts on a stressed syllable and carries the pitch initiation. The

stressed syllable is usually the wh - word. Alternatively, the pitch initiation may be carried by any other word which S wants to be heard as salient. In the latter case the whole utterance carries a more emphatic overtone (see also previous pages on tonicity of wh - questions).

b. the nuclear syllable performs a gradual rather than abrupt falling movement.

c. the rising movement is carried by the last stressed syllable of the IG which is produced at a very low level. If there exist other syllables in the last word of the IG the rising movement is carried by them, otherwise the last stressed syllable carries the rise as well.

d. the intervening syllables (between the fall and the rise) are sometimes produced on a low level or a falling pitch. In no case does the rising movement take place immediately after the fall.

An interesting case is that of very long wh - constructions whereby apart from the basic falling - rising tune appearing on the wh - word (or on anoher word) and the last word respectively, occasionally, there appears a secondary falling tune starting on

another stressed syllable. The main reason for calling this a secondary fall is that it is produced on a lower pitch than the first fall:

(127) \TI oδiγjise omos tus epixjirimaties na epenδisun stis \AΔJES mexri prin apo liγo /EθUSES// ("but <u>what</u> led the cinema enterprisers to invest in the <u>empty</u> till now cinema <u>auditoria</u>?" - 44th NSMG).

The other nuclear tone which appeared in the Greek wh - questions was the falling tone. In most cases a high falling tone was used. Occasionally a distinction is made between wh - questions with a falling - rising tone which indicate politeness and wh - questions with a falling tone which denote a straightforward even abrupt attitude. This is proved by the following fact: I had included in the relevant data two identical wh - questions. The only difference was that in the second question the word "παρακαλώ" (parakalo) ("please") was added implying that the informants were asked to sound polite. The results showed that 3/44 subjects modified their intonation in the two sentences by producing the sentence without parakalo with a fall on the wh - word and the sentence with parakalo with a falling - rising tone. Nevertheless,

41/44 NSMG used a falling - rising tone in both cases.

Another interesting point is that many wh - questions were produced with a falling tone in the spontaneous conversation (unit three). This observation together with the observation made above make us assume that the falling - rising tone in MG is usually used to indicate informal as well as formal style and it is also related to politeness whereas the use of the falling tone in the same type of questions is only connected with informal style:

ATTITUDE

ABRUPT	NEUTRAL	POLITE
FALLING		FALLING - RISING

STYLE

CASUAL	INFORMAL	FORMAL
FALLING		FALLING - RISING

The relationship between attitude and tone of wh - questions in MG

Lastly, the chi - squared obtained exceeds the normal value at the chosen level of significance between the theoretical (table 10) and observed (table 8) distributions ($p < 0.001$).

6. 3. 2 NSMG WITH THE ENGLISH DATA

TONE OF WH - QUESTIONS; NSMG WITH E

FALL	70	27%
RISE	4	1.5%
FALLING - RISING	183	71%
TOTAL NUMBER OF SENTENCES	257	

Table 9

DISCUSSION

As the above numbers show, NSMG used a falling - rising tone for the production of the majority of wh - questions of the English data. This tendency might be explained in terms of intonational interference as this tone was found to be the predominent tone in the Greek data.

The chi - squared obtained exceeds the normal value at the chosen level of significance, therefore, there is evidence for a divergence between the theoretical (table 10) and observed (table 9) distributions ($p < 0.001$).

Comparing the performance of the three groups of learners (see table 11), we notice that the D - prelower group gave a big number of unexpected sentences (96%)[19]:

(128) `WHAT are they talking A,BOUT// (37th NSMG).

(129) `WHY is she so sad TO,DAY// (32nd NSMG).

University students gave a percentage of 64% unexpected answers:

(130) `WHICH is the way to the ,STATION please// (16th NSMG)

(131) `WHERE have you ,BEEN// (22nd NSMG).

The following unexpected sentences (61%) were produced by two informants from the lower - post lower group:

(132) When are they leaving for ^GREECE// (43rd NSMG)

(133) `WHY don't you like coffee// (41st NSMG).

Example 132 is loaded with other implications in E while in MG (an equivalent sentence) could only have the meaning of a yes/no question. Therefore, the 43rd

NSMG perhaps made two unacceptable choices here: first, he probably regarded the above sentence as a yes/no question and second, transferring his intonational habits from MG he used a rise - fall.

The above results show that the lower - post lower group gave the best performance, yet the percentage given above shows that even this group is far from being close to the ideal native performance with regard to the production of wh - questions. Actually, it seems that the falling - rising tone (and the nucleus on the wh - word) is almost the only choice for NSMG concerning the production of such questions even in E indicating that this is a striking area of interference from MG.

6. 3. 3 NES

TONE OF WH - QUESTIONS; NES

FALL	63	77%
RISE	8	10%
FALL - RISE/FALL PLUS RISE	11	13%
TOTAL NUMBER OF SENTENCES	82	

Table 10

DISCUSSION

The above results show that NES have the tendency to produce wh - questions with a fall (high - fall in all cases). Compare/contrast examples (129) and (133) above with examples (134) and (135) below:

(134) Why is she so `SAD today// (all NES).
(135) Why don't you like `COFFEE// (1st, 2nd, 3rd, 4th, 5th, 6th, 7th, 10th, 11th and 12th NES).

Occasionally, a fall - rise was used with the nucleus on the wh - word and elsewhere, especially in the following example:

(136) Which is the way to the ᵛSTATION please// (1st, 2nd, 3rd, 4th, 5th, 8th, 9th and 12th NES).

It was interesting that some NES had used a rise (low or high) on the word "when" for the production of example 137. With this tone the sentence takes the meaning of an echo question (O'Connor and Arnold, 1973:77):

(137) (ˊ)(ˊ)WHEN are they leaving for Greece// (5th, and 9th NES while 8th and 10th NES had used a high - rise).

Nevertheless, the performance of NES with regard to tone of wh - questions is in accordance with the experimenter's expectations and O'Connor and Arnold's description of this type of questions (see also O'Connor and Arnold, 1973:55,109).

The following were also considered unexpected sentences:

(138) ˋWHY don't you like coffee// (8th NES)

(139) ˋWHEN are you leaving for ˋGREECE// (12th).

UNEXPECTED SENTENCES IN THE ENGLISH WH - QUESTIONS

(TONICITY AND TONE)

D - PRELOWER GROUP	69/72	96%
LOWER - POST LOWER GROUP	58/95	61%
UNIVERSITY STUDENTS	58/90	64%
CONTROL GROUP	9/82	11%

Table 11

Lastly, with regard to tables 10 (theoretical frequency) and 11 (observed frequncy), statistical evidence showed that the value of chi - squared was: 7.914656 ($p = 0.019$).

6. 4 POLAR QUESTIONS IN MG AND IN E

6. 4. 1 NSMG WITH THE GREEK DATA

The Greek data was provided by 4 sentences from unit one, 9 sentences from unit two and a variable number of polar questions from unit three. Most of the sentences collected were relatively short and simple (only two complex clauses were chosen from the first and second unit; similarly with regard to the third unit long and complex sentences were generally avoided). Not all sentences had the same word order; especially sentences of unit three exhibited a variety of informal polar questions with different syntactic arrangements of their constituents.

POLAR QUESTIONS IN MG; NSMG

RISING - FALLING	642	98%
FALLING - RISING	8	1%
HIGH - RISING	2	0.3%
TOTAL	652	

Table 12

As shown from the above numbers, the rising - falling nuclear tone is almost the only tone used by NSMG for the production of the polar questions which occurred in the data. In all cases the rising - falling tone had a delayed end or started from the first syllable of the verb and ended on the final stressed syllable of the IG.

With regard to tonicity, various answers were obtained because not all sentences (of unit two) were preceded or followed by context and each informant gave different interpretations of new and given information. Generally speaking, nucleus placement on the verb was related to contrastive stress while nucleus on the last lexical item had to do with foreground/new information. Only a limited number of informants placed the nucleus on the last lexical item in the following cases[20]:

(140) na kliso to ^FOS// ("Shall I switch off the light?" - 7th, 10th, 15th, 23rd, 32 and 33nd NSMG).

As the informants were asked to produce all sentences as if they were actually present in a scene, most of them probably imagined that they were in a room where

the light was on, that is, they considered it as part of their shared knowledge, so they deaccentuated fos ("light"). Nevertheless, the above six subjects failed to make this assumption and they placed the nucleus on fos. As a native speaker, it seems to me that 140 is more like an echo or a confirmation question than a straightforward yes/no question.

(141) tis milises γja ton ^PETRO// ("Did you speak to her about Peter?" - 6th, 15th and 25th NSMG).

The above choice implies that S has maybe just heard that H has spoken to "her" about Peter and he/she (S) is asking for confirmation. (In fact, S might also have added in the question the following: "...Why? We had agreed to mention nothing to her about Peter"). On the other hand, placing the nucleus on milises ("spoke") (as most NSMG did) shows that H knew in advance that S intended to speak to "her" about Peter and recalling this incident now, he/she (S) is asking for information.

(142) eferes ta ^PSONJA// ("Have/ did you bring the shopping?" - 19th and 23rd NSMG).

The above example implies that S sees the shopping and he/she is asking for confirmation. The other alternative with the nucleus on eferes (chosen by the majority of subjects) implies that S remembers that H was going to go for shopping and he/she (S) probably sees no shopping. Notice that (142) does not (necessarily) imply background information.

(143) telioses me tis SIMI^OSIS// ("Have/did you finish(ed) with the notes?" - 15thNSMG).

The above version probably implies that S sees with (surprise) that H has finished with the notes and he/she (S) is asking for confirmation. On the other hand, placing the nucleus on telioses ("finished") (as the majority of the Greek informants did) possibly means that S is expecting H to finish with the notes soon and he (S) is asking for information. Nevertheless, the meaning distinction between the two intonational choices of 143 is not at all straightforward; in fact all NSMG I had asked appeared very confused; 3 of them told me that the two sentences had an identical meaning, while 2 thought they were "slightly different".

A problem appeared in example 144 below where nucleus placement on saresi is not necessarily related to background information:

(144) SA^RESI to sinema// ("Do" you like cinema"? - produced by 43 NSMG)

After careful observation of cases similar to the above it was found that the verbs of the data which presupposed shared knowledge were all in some type of past tense[21]. Thus a close relationship appears between tense and tonicity in the Greek polar questions.

It is worth discussing another example obtained from unit three:

(145) o traxanas SA^RESI// ("Do you like traxanas? - 30 th NSMG).

Example 145 is very similar to example 144. Why do these two sentences have a different realization of the rising - falling tone then? The most plausible answer is obviously related to syntax: the two sentences have a different syntactic arrangement. If sentence 144 had the same syntactic structure as sentence 145 it would have the following tonicity:

(144a) to sinema SA^RESI//

As observed from these data, those sentences which (apart from the main verb) consisted of an object could be syntactically formulated in more than one way and this affected the intonational treatment of those sentences (when changed into polar questions): when the object (direct) is placed after the verb the rising movement of the nuclear tone starts on the first accented syllable of the verb and it is completed on the last stressed syllable of the IG. When the verb comes after the object of the sentence the rise fall with the delayed end is used. Thus, we must accept that the intonational treatment of polar questions in MG is often syntactically determined.

1. V O 

eg SA^RESI to sinema

2. O V 

eg to sinema SA^RESI

Lastly, with regard to the production of these questions by the Greek informants, it was interesting that one particular sentence (35 in the appendix) was produced with a falling - rising (stylised fall) by 10 NSMG and with a high - rise by 2 NSMG. It seems that these informants regarded the above as an echo question. It is not easy, however, to explain why only this question was given a different interpretation as

well as intonational treatment than the rest of the sentences:

(146) θa to ↴SKASIS// (6th, 22nd, 25th, 27th, 28th, 29th, 3oeth 35th, 36th, 42nd, while the 13th and 17th NSMG had used a high - rise).

6. 4. 2 NSMG WITH THE ENGLISH DATA

The data was provided by 4 sentences from unit one and 11 sentences from unit two. All the sentences were short (some of them very short) and simple (with the exception of only one complex sentence of unit one). The verbs of the sentences provided a sampling of different tenses.

POLAR QUESTIONS IN E; NSMG WITH E

RISING - FALLING	206	32%
HIGH - RISING	132	20.5%
LOW - RISING	165	25.5%
FALL	60	9%
FALLING - RISING	84	13%
LEVEL	1	0.15%
TOTAL	648	

Table 13

The above numbers show that NSMG used a variety of nuclear tones in their effort to produce the English polar questions which appeared in the data. The rising - falling tone was used in most circumstances, something which undoubtedly shows that there was considerable amount of interference from MG in all groups. As table 15 shows below, interference was most evident in the D - prelower group, with university students and the lower - post lower group performing at approximately the same level (see also table 14 below).

It was interesting that some sentences of the data were produced in exactly the same way as the equivalent Greek sentences had been produced. It is, therefore, assumed that some NSMG probably translated the sentences into MG and then they used the same nuclear tone for E:

(147) Are you ^TIRED// (produced by 12 NSMG).

(148) Are you going to the ^PARK// (produced by 13 NSMG).

(149)^ SHALL I switch off the light// (produced by 15 NSMG).

(150) (∧)HAVE you (∧)FINISHED with that// (6 NSMG had placed the nucleus on "Have" while 9 NSMG had placed the nucleus on "finished").

For many informants, use of the rising - falling tone was almost invariable. On the other hand, a small number of subjects (basically lower - post lower and university students) avoided the rising - falling tone in all sentences of unit one and two.

A number of other sentences were characterized as unexpected[22] on the basis of nucleus placement, such as:

(151) ,DO you mind// (8 NSMG).

(152) ,ARE you a student// (3 NSMG).

(153) ,HAVE you finished with THAT// (13th NSMG).

The above examples may show that these subjects are in a transitional stage whereby they have abandoned the rising - falling tone but they still give prominence to a non rightmost item (151-153 can clearly be related to ∧DO you mind, ∧ARE you a student, ∧HAVE you finished with that).

Some other sentences produced with a low - rising tone did not sound very "English" mainly because they had a non fixed, rather high ending point:

(154) Is it /FIVE// (2 NSMG).

(155) Could you please start TO/MORROW// (6 NSMG).

6. 4. 3 NES

With regard to the production of polar questions by NES, the experimenter had collected the same sentences that had been collected for NSMG (unit one and two) as well as an additional number of questions of the same category collected from unit three. Sentences of the latter category were rather short and mostly simple.

POLAR QUESTIONS; NES

FALL - RISE/FALL PLUS RISE	62	35%
LOW - RISE	59	33.5%
FALL	41	23%
HIGH - RISE	14	35%
TOTAL	176	

Table 14

DISCUSSION

Some interesting points arise from the results of the above table: first, it appears that, generally, the most frequent tone in the English polar questions is the fall - rise (fall plus rise). In fact, the appearance of this tone is really striking in unit one and two:

(156) Could you please start TO$^{\vee}$MORROW// (1st, 3rd, 7th, 8th and 10th NES).

(157) Are they $^{\backslash}$GOOD these $_{/}$COOKIES// (1st, 2nd, 3rd, 4rth, 5th, 7th, 8th and 11th NES).

In unit three 10/19 examples were produced with a falling tone. Although the present data is limited this observation may suggest that the intonation of polar questions in E is closely related to style, that is, in casual/informal style NES often use a falling tone whereas in more formal style they usually prefer to use a rising tone (see also discussion below).

The low - rise nuclear tone was also widely used, especially in unit one and unit two, while the high - rise had a rather limited frequency of occurence (more high - rises occurred in unit three indicative of the

fact that the high - rise implies a light and casual attitude).

(158) Have you been a ˌFRAID of something// (1st, 2nd, 4rth, 7th, 9th, 11th and 12th NES).

(159) Are we going to do any work this WEE´KEND// (5th NES).

Very few unexpected sentences occurred. One of them was produced by two NES:

(160) Did he mention to you anything A˅BOUT Peter// (2nd and 5th NES).

D - PRELOWER GROUP	116/180	64%
LOWER - POST LOWER GROUP	60/243	25%
UNIVERSITY STUDENTS	62/225	27.5%
CONTROL GROUP	13/176	7%

Table 15

Lastly, the chi - squared obtained exceeds the normal value at the chosen level of significance, therefore, there is evidence for a divergence between the theoretical (table 14) and observed (table 15) distributions ($p < 0.001$).

CONCLUSIONS

With regard to polar questions in MG and in E, the present data suggest the following main points:

a. NSMG tend to produce polar questions with a rising - falling tone.

b. the rising - falling tone has two phonetic realizations and these are related to (though not dependent upon) the distribution of background and foreground information as well as the syntactic arrangement of the constituents of the question.

c. the use of any other tone is unacceptable in the Greek polar questions because they only have the meaning of polar questions when produced with a rising - falling tone.

d. The majority of the Greek informants used a rising - falling tone when producing the English polar questions. This is a serious problem as in E the use of the rise - fall is unacceptable in polar questions with no emotional tension.

e. the process of interference from MG was more striking in the D - prelower group. On the other hand,

university students and the lower - post lower group produced fewer unexpected sentences.

f. the present data showed that current RP (especially young speakers) tend to produce more fall - rises than low - rises in polar questions.

g. it was also found out that NES tend to use more falls than rises when producing polar questions in face to face informal conversations. In more formal style, NES prefer to use rising tones.

The points expressed in f and g are different to O' Connor and Arnold's description of the English polar questions and it would be beneficial if further research on the particular area be realized.

6. 5 TONALITY IN E AND MG

6. 5. 1 NSMG WITH THE GREEK DATA

THE TEXT

On the whole, 1926[23] real pauses were produced . The 44 Greek informants were unanimous in using a real pause in case where a full stop was indicated in the text (792 real pauses for the 44 NSMG, corresponding to the 18 full stops of the text). The same is true for the question mark (";" in MG), whereby all subjects used a real pause (484 real pauses for the production of the sentences which included a question mark by the 44 NSMG). Variation occurred in the decision of the informants concerning the production of sentences which included other punctuation marks; in particular, for the exclamation mark ("!"in both languages) a real pause was used only when this was in an absolutely final position (thus only 8/10 real pauses were used by each one of the 44 NSMG for the production of the exclamatory marks, that is, 372 real pauses). Also, only 3/7 sentences with a colon (":" in both languages) were produced with a real pause (thus 132 real pauses were produced). Lastly, 44 real pauses were used for the production of dots ("..." in both languages) when these were in final position and 23

real pauses for the production of semi - colon (";" in E and ":" in MG). Remaining real pauses were either in locations where other speakers had shorter pauses or were accidental disfluencies in particular speakers.

As far as the production of brief and very slight (henceforth v. slight) pauses are concerned, NSMG were less unanimous. As the transcription revealed, there appeared a close relationship between a comma and a brief pause. Nevertheless, this does not mean that always some type of pause corresponded to every comma. Moreover, very many other brief or very slight pauses were used where no punctuation mark was indicated in the text. The result was that some informants produced the text with more pauses than other informants when producing the same text. In many cases the additional pauses that were used by NSMG were triggered by particularly long sentences which were not punctuated. Generally speaking, 1914 brief and 333 v. slight pauses were produced.

Although there was not even one single case where all 44 Greek subjects agreed in using a brief or a v. slight pause, the relevant results showed that there appeared many environments where half or more of the Greek informants agreed with one another in using some sort of a pause.

As the reader can see below, for the placement of brief/v. slight pauses NSMG made extensive use of criteria like those devised for E by Crystal (1975: 17-25). The lists given in the following pages are not exhaustive; nevertheless, they cover most cases where half or more NSMG paused. Also, the lists are productive in the sense that they represent the tendency of NSMG to pause in locations which can be defined according to Crystal's criteria. The pause (/) given after each category is a general pause, that is, it stands for the brief as well as the v. slight pauses which were collected from each Greek informant.

AREAS WHERE THE MAJORITY OF NSMG USED A PAUSE

A. INITIAL ADVERBIAL PHRASE (Crystal; 3, p 18)

(161) prin apo merika xronja, / (42/44 NSMG)
("Some years ago,")

(162) meta tin opera kje to raδio siti, / (44/44 NSMG)
("After Opera and Radio City,")

(163) mexri to telos tis xjimerinis sezon, / (44/44 NSMG)
("Till the end of the winter season",)

(164) perisotero apo aγapi γja tin eθusa omos, / (42/44 NSMG)
("More because of love for the hall, however,")

(165) ala kje γja to ideal, / (44/44 NSMG)
(But also for Ideal,")

(166) episis, / (33/44 NSMG)
("Also,")

B. CO - ORDINATE CLAUSES (Crystal; 2, p 17)

(167) to meγalio tu xoru / kje tin teliotita tu stereofoniku ixu. (30/44)
("the magnificence of the space and the perfection of the stereo sound")

(168) to epitixjimeno pirama tis operas / kje i apelefθerosi tu isitiriu (42/44)
("the successful experiment of Opera and the release of the prices of the tickets", that is, lifting of price restrictions)

C. STRUCTURAL PARALLELISM (Crystal; 1, p 17)

(169) to atikon, / (44/44 NSMG) to ideal / (42/44 NSMG) ("Attikon, ideal")

(170) to aθineon, / (44/44 NSMG)
("Athineon,")

(171) dolbi sistem, / (44/44 NSMG) moketa, / (44/44 NSMG)
("dolby system, carpet,")

(172) bar, / (44/44 NSMG) estiatoria, / (43/44 NSMG)
("bars, restaurants")

D. NON RESTRICTIVE APPOSITION (Crystal; 3, p 18)

(173) o kjirios mixailiδis, / (40/44 NSMG) δiefθindis tis elke, / (44/44 NSMG)
("Mr Michaelides, the director of Elke,")

(174) ala kje γja to ideal, / (44/44 NSMG) to sinema pu provale proto stin elaδa ton politi kjein kje li pa, / (44/44 NSMG)
("Also, with regard to Ideal, the cinema which presented first in Greece the citizen Caine etc,")

E. POSTMODIFICATION IN SUBJECT (Crystal; 3, p 20)

(175) proγramatizete na δimiurγjiθi ena katastima, / (43/44 NSMG) to opio θa pulai saundrak tenion.
("It is being planned that a store will be founded,

which will be selling sound track movies")

F. POSTMODIFICATION BY FINAL RESTRICTIVE CLAUSE (Crystal; 2, p 19-20 and 3, p 20)

(176) skeptode na proxorisun sti δimiurγjia polon kjinimatoγrafikon eθuson / (43/44 NSMG) pu θa steγazode ston iδjo xoro.
("they plan to proceed to the creation of many cinema halls which will be housed in the same place")

G. NOUN PHRASE (SUBJECT) (Crystal; 3, p 20)

(177) mia simadiki kjenotomia tu neu ideal / (44/44 NSMG) θa ine ta iδika efe.
("An important innovation of the new Ideal will be the special tricks")

THE GREEK SENTENCES

On the whole, 502 brief and 96 v. slight pauses were produced by the 44 Greek informants[24]. As the relevant transcription shows, NSMG managed to agree among themselves in their choice of placing specific IG boundaries. It must also be stated that their choices agreed to a large extent with the experimenter's expectations. Most subjects made extensive use of the

punctuation cues included in the selected sentences. Nevertheless, a comma did not always trigger a pause. What is more, occasionally, the appearance of the comma hindered rather than facilitated the production of the expected answer, as in the following example:

(178) na su sistiso ton aδerfo mu AΔER`FO mu, / `PETRO// (20 th NSMG)
("Let me introduce you to my brother, Peter").

Lastly, it should also be mentioned that NSMG based their choice for the expected answer not only on tonality but on tone as well. The result was that many alternative answers were given and the presence/absence of a pause from a sentence did not necessarily imply an (un)acceptable answer. Some acceptable variants of example 178 (ie "let me introduce to you my brother, Peter") were the following:

(178a) na su sistiso ton AΔER`FO mu / ,PETRO (27th NSMG)

(178b) na su sistiso ton AΔER`FO mu ,PETRO// (14th NSMG)

(178c) na su sistiso ton AΔER`FO mu /ᵒpetro// (28th NSMG)

(178d) na su sistiso ton AΔER`FO mu petro// (35th NSMG)

AREAS WHERE THE MAJORITY OF NSMG MADE THE EXPECTED TONALITY CHOICES

A. CO - ORDINATE CLAUSES WITH PAUSE, (b) WITH ELLIPSIS OF THE OBJECT AND NO PAUSE (Crystal; 1, p 17-18)

(179a) eɣrapse, / (43/44 NSMG) kje pareδose to ɣrama//
("He/she wrote, and he/she submitted the letter")

(179b) eɣrapse (39/44 NSMG) kje pareδose to ɣrama//
("He/she wrote and he/she submitted the letter")

B. FINAL VOCATIVE WITH PAUSE (A) AND APPOSITION (B) WITH NO PAUSE (Crystal; B, p 19 and 3, p 18)

(180a) na su sistiso ton aδerfo mu, / (32/44 NSMG) petro//
("Let me introduce to you my brother, Peter")

(180b) na su sistiso ton aδerfo mu (42/44 NSMG) petro//
("Let me introduce to you my brother Peter")

C. STRUCTURAL PARALLELISM (Crystal; 1, p 17)

(181) i karekles, / (41/44 NSMG) ta trapezja, / (43/44 NSMG) ta skamnakia (33/44 NSMG) kje i popliθrones / (30/44 NSMG) vriskonde eδo//
("the chairs, the tables, the stools and the armchairs are here")

(182) exo stafilja, / (44/44 NSMG) ksinomila, / (43/44 NSMG) fraules...//
(" I have grapes, sour apples, strawberries...")

(183) exume na psonisume γala, / (44/44 NSMG) psomi,/ (39/44 NSMG) γjaurti (26/44 NSMG) kje fruta//
("We have to buy milk, bread, yogurt and fruit")

D. NON RESTRICTIVE (A) AND RESTRICTIVE (B) CLAUSES (Crystal; 3, p 18)

(184a) i γjatri, / (44/44 NSMG) pu kserun ti δulja tus, / (43/44 NSMG) θerapevun tus asθenis//
("The doctors, who know their job, treat the patients")

(184b) i γjatri (42/44 NSMG) pu kserun ti δulja tus/ (31/44 NSMG) θerapevun tus asθenis//
("The doctors who know their job treat the patients")

E. SCOPE OF NEGATION: a. THE NEGATIVE SCOPE LIES BEYOND THE SUBJECT, b. THE SCOPE OF NEGATION IS INCLUDED IN THE SUBJECT

(185a) δen tis milisa, / (42/44 NSMG) γja na min ti stenoxoriso//
("I didn't speak to her, so as not to upset her")

(185b) δen tis milisa (42/44) γja na min ti stenoxoriso ...(ala γja kapion alo loγo) //
("I didn't speak to her so as not to upset her...but for some other reason")[25]

F. VOCATIVE (Crystal; 1, p 19)

(186) to alisverisi, (34/44 NSMG) manoli,/ (37/44) θeli ne taxis tetrakosja//
("Money exchange, Manoli, requires that you be very careful")

6. 5. 2 NSMG WITH THE ENGLISH DATA

THE ENGLISH TEXT

1258 real pauses, 810 brief pauses and 204 v. slight pauses were produced by the 44 NSMG. A general observation that can be made here is that the distribution of these pauses resembles the distribution of the pauses of the Greek text. In particular, a real pause was used whenever a full stop was indicated in spelling (thus 616 real pauses were produced by the 44 Greek informants for the 14 full stops of the text). Also, whenever a question mark, an exclamatory mark or a colon occurred in an absolutely final position all 44 subjects used a real pause (thus 220, 132 and 132 real pauses were collected corresponding to the five question marks, three exclamation marks and three colons that were produced by all NSMG).

As far as brief pauses are concerned, NSMG were greatly influenced by spelling, as the majority of them had used a brief pause when a comma was indicated in the text (192 such pauses were produced). Also, many other brief pauses where produced which were not triggered by spelling. On the contrary, most of the very slight pauses that appeared in this text were not

triggered by punctuation.

The treatment of reporting phrases by NSMG was particularly interesting: according to the relevant transcription, there appeared an obvious tendency to use a pause between the main clause and the reporting phrase and two clearly distinguishable nuclear tones; the IG which consisted of the narrative word ("told", "asked", "replied") was always produced with a falling tone (usually a low - fall) whereas the tone of the preceding IG varied.

The time taken by each informant to read the English text was measured. The purpose of this task was to compare the performance of the three different groups of NSMG (English data) and find out which group came closer to the native English performance.

As the results showed, the performance of NSMG varied a lot. Some speakers came very close to the native performance while others produced the text more slowly. In terms of groups, university students seemed to have been closer to the English performance (the individual mean time for the university group was 1 minute and 14 seconds, for lower - post lower group 1 minute and 19 seconds and for the D - prelower group 1 minute and 32 seconds. The mean time of each NES

for the production of the same text was 1 minute and 9 seconds). Statistical evidence (t - test) also showed that the difference between the D - prelower group and the control group is clearly significant ($p = 0.00194$), the difference between the lower - post lower group and the control group approaches significance ($p = 0.086$) while there is no difference between the university group and the control group ($p = 0.408$).

THE ENGLISH SENTENCES

According to the results obtained from the relevant area, 613 brief and 46 v. slight pauses were produced by the 44 NSMG.

As shown from the presentation of the sentences above, the majority of NSMG managed both to understand and convey the different meanings carried by the English sentences. Punctuation marks offered great help and in most cases facilitated the production of the expected answer. Nevertheless, examples 2a, b, 4a, b and 5a, b of the appendix (examples 187 and 188 below) created problems to a considerable number of informants. In such cases, NSMG tried to get some help from other cues (as, for instance lexical cues or cues related to tonicity and tone). The result was that certain

sentences were associated with a number of different intonational choices:

(187a) Let me introduce you to my `BROTHER, / ,PETER//
(28th NSMG - D - prelower)

(187b) Let me introduce you to my `BROTHER, ,PETER//
(23rd NSMG - university)

(187c) Let me introduce you to my `BROTHER, /°Peter//
(29 NSMG - lower)

(188a) The children who were very attentive did well in their E`XAMS// (28th NSMG - D - prelower)

(188b) The children who were very AT ,TENTIVE / did well in their E`XAMS// (31st NSMG - lower)

(188c) The children who were very AT`TENTIVE / did well in their E`XAMS// (5th NSMG - lower)

Lastly, NSMG exhibited the tendency to use a pause after the production of reporting phrases, a clear case of interference from MG.

AREAS WHERE THE MAJORITY OF NSMG MADE THE EXPECTED TONALITY CHOICES

A. CO - ORDINATE CLAUSES (B) WITH ELLIPSIS OF THE OBJECT

(189a) She dressed (36/44 NSMG) and changed the baby//

(189b) She dressed, / (44/44 NSMG) and changed the baby//

B. FINAL VOCATIVE (A) and APPOSITION (B)

(190a) Let me introduce you to my`BROTHER, / (28/44) Peter//

(190b) Let me introduce you to my brother (42/44 NSMG) PETER//

C. STRUCTURAL PARALLELISM

(191) Mary, / (40/44 NSMG) John, / (40/44 NSMG) Peter (33/44 NSMG) and Tom / (40/44 NSMG) are students//

(192a) They have apples, / (44/44 NSMG) grapes, / (42/44 NSMG) apricots, / (43/44 NSMG) strawberries...

(192b) They have apples, / (43/44 NSMG) grapes / (37/44 NSMG) and strawberries//

D. NON RESTRICTIVE (A) AND RESTRICTIVE CLAUSES

(193a) The children, / (43/44 NSMG) who were very attentive, / (44/44 NSMG) did well in their exams//

(193b) The children (33/44 NSMG) who were very attentive / (36/44 NSMG) did well in their exams//

E. SCOPE OF NEGATION: (A) THE NEGATIVE SCOPE LIES BEYOND THE SUBJECT (B) THE SCOPE OF NEGATION IS INCLUDED IN THE SUBJECT

(194a) I didn't go to the doctor, / (44/44 NSMG) because I was ill//

(194b) I didn't go to the doctor (42/44 NSMG) because I was ill...(but because of some other reason)//

F. REPORTING PHRASE

(195) Where have you been / (37/44 NSMG) she said//

6. 5. 3 NES

THE TEXT

332 real pauses, 136 brief and 75 v. slight pauses were produced. Generally speaking, there is a great deal of similarity between NSMG and NES, with regard to the environments where they paused; however, NSMG used more pauses. This is proved by having a look at the areas where the majority of NSMG and the majority of NES paused; the results showed that NES used real pauses for all the full stops which appeared in the text. Also, whenever a question mark, an exclamation mark and a colon occurred in an absolute final position a real pause was used (thus 168 real pauses were produced for the 14 full stops of the text, 60 real pauses for the 5 question marks, 36 real pauses for the 3 exclamation marks and 36 real pauses for the 3 colons used by all NES, while other real pauses which occurred were accidental).

With regard to brief and v. slight pauses, the general tendency was to pause when a punctuation mark occurred though the correspondence between punctuation and intonation was not at all exact. As this was also the case with MG, we can claim that the relationship between punctuation and tonality is quite similar in

both languages. Also, punctuation should in both languages be understood as a general guide for the reader towards the correct interpretation of the meaning of sentence/text. However, there seems to be no categorical correspondence between any punctuation mark and a specific type of pause.

In reporting phrases NES used either no pause at all or a brief or v. slight pause but only one pitch movement.

In the area of question tags NES were less unanimous but the general tendency was towards the use of two nuclear tones (in the two question tags that appeared in the text 12/12 NES paused for the production of the first sentence while 5/12 paused for the second sentence. The treatment of question tags was similar in MG whereby a pause and a change in the pitch movement was produced by most NSMG.

The following lists show the areas where NSMG and NES used a brief or a v. slight pause, according to Crystal's (1975) criteria for the division of IG boundaries:

A. ADVERBIAL INITIAL

(196) For a moment, / she wanted to run out of the building//

(197) Just then, / Wilson came through the door and hurried into his office//

(198) A few minutes later, / his secretary took Linda in//

B. ADVERBIAL FINAL

(199) Wilson had left the office / when she got there//

(200) She had to sit down and wait for a few minutes/ in the outer office//

C. CO - ORDINATE CLAUSES

(201) She had to sit down / and wait for a few minutes in the outer office//

(202) Just then, Wilson came through the door / and hurried into his office//

(203) They talked for a few moments / and then they went down into real business//

D. DIRECT SPEECH

(204) Linda said: / I'm sorry sir, I'm late//

E. TAG UTTERANCES (Crystal; 7, p 19)

(205) You have never worked in radio or television before, / have you//

(206) You are not afraid, / are you//

F. MULTIPLE MODIFICATION: PREMODIFICATION OF GENERAL ADJECTIVES (Crystal, 12)

(207) He continued with a nice, / easy going tone of voice//

THE ENGLISH SENTENCES

154 brief and 14 v. slight pauses were produced by the English informants.

Generally speaking, NES did produce the sentences according to the experimenter's expectations. Whenever

puzzled about the meaning of the sentences NES also tried to rely on tonicity and tone. Unexpected versions also occurred, especially in 2a, b and 4a, b. For instance, in 2a, b of the appendix (example 208 below) various interpretations appeared and 7/12 NES failed to produce the sentence in the expected ways and may have failed to understand what was intended. The rest of the subjects made choices similar to the ones NSMG made:

(208a) Let me introduce you to my `BROTHER, / Peter//

(7th NES)

(208b) Let me introduce you to my `BROTHER, / `PETER//

(8th NES)

Also, in 4b of the appendix 4/12 NES failed to give versions which have the right interpretation. Within the conditions of the experiment, therefore, expected tonality contrasts could not always be maintained. Some NES volunteered the information that they could not see the intended meaning differences.

Generally speaking,the treatment of structural parallelism was similar in MG and E and less pauses occurred before items introduced by "and" (close

listing). When "and" was not included in the sentence (open listing) the tendency was to pause before all items of the list.

AREAS WHERE THE MAJORITY OF NES MADE THE EXPECTED TONALITY CHOICES

(209a) She dressed (11/12) and changed the baby//

(209b) She ˏDRESSED, / (1/12 NES) and changed the baby//

(210a) Let me introduce you to my`BROTHER, / (9/12 NES) Peter//

(210b) Let me introduce you to my brother (12/12 NES) `PETER//

(211) Mary, / (7/12 NES) John, / (11/12) Peter and Tom/ (9/12) are students//

(212a) The children, / (12/12 NES) who were very attentive, / (12/12 NES) did well in their exams//

(212b) The children who were very attentive / (9/12) did well in their exams//

(213a) I didn't go to the doctor / (11/12) because I was ill...//

(213b) I didn't go to the doctor (12/12) because I was ill...//

(214a) They have apples, / (12/12 NES) grapes, / (12/12 NES) apricots, / (12/12 NES) strawberries...//

(214b) They have apples, / (12/12 NES) grapes, / (11/12 NES) and strawberries//

(215) Where have you`BEEN, / (8/12 NES)

6. 6 COMPLETE AND NON COMPLETE CLAUSES/PHRASES IN E AND MG

INTRODUCTION

In any type of communicative process (oral or written) some common knowledge about a specific event is implied. Gussenhoven (1983a) calls the understanding that the participants have reached at any point in the communicative process "background". According to him, also, background knowledge should be viewed as a product of information which comes either directly from recent face to face communication or from what S takes to belong to H's sphere of knowledge. In a similar way, Halliday (1970) speaks of a theme which is known to H one way or the other upon which the new information is going to be built.

As mentioned in chapter 2, the distribution of old and new information is manipulated in two ways:

1. S adds new information to H's background knowledge.

2. S refers back to an event or a person which/who belongs to H's background knowledge.

The above dichotomy is closely related to two important nuclear tones, namely a falling and a rising tone. The falling tone is associated with completeness and finality (case 1 above), whereas rising tones are generally related to incomplete meaning as well as non finality.

According to Halliday (1970:23), a falling contour expresses certainty in many languages (though not in all) while a rising contour expresses uncertainty. He also finds a close relationship between the ups and downs of human voice and incompletion and completion respectively, that is, matters that have not been finalized and are still subject to uncertainty are up while things that have reached a conclusion are certain and down. The F(x) contours of complete and non complete clauses found in my data demonstrate that what was stated by Halliday generally holds true for E and MG: quite often the falling tone coincided with the end of the IG, and a rising tone had a straightforward association with non completeness or uncertainty (but see also following pages).

A comprehensive account of the English falling and falling - rising tone is presented by Brazil et al (1980). According to these authors, intonational

meaning is fully dependent on discourse. For them, a falling tone is a "proclaiming tone" which extends the common ground between S and H, whereas the falling - rising tone is a "referring tone" since it refers to information already known to H. Brazil et al (1980) further state that the (low) rise and the rise - fall should be understood as variants of referring and proclaiming tones respectively.

Another author dealing with the dichotomy of falling and rising tones is Jackendoff (1972:262). Generally speaking, he claims that the falling and the rising (in particular, the falling - rising) tones signal two variables, x and y chosen in that order; the falling - rising tone is related to the independent variable (the one chosen first) while the falling tone is related to the non dependent variable (the one chosen second). Jackendoff adds that items which are topicalized in a phrase/sentence are usually produced with a falling - rising nuclear tone.

Gussenhoven (1983a:13-15), gives a precise and concise description of the falling - rising and the falling tone; in fact, he also includes the low - rise tone in his analysis and so he presents a more complete picture of these tones. What is crucial in Gussenhoven's analysis is the distinction between the

falling and the low - rising tone. According to Gussenhoven, S has three options or "manipulations":

1. S may add the variable ("contribution") to the background ("ADDITION").

2. S may select a variable from the background ("SELECTION")

3. The third option is something between 1 and 2; S is not sure whether his/her variable belongs to H's background knowledge. Therefore, H is only "testing" whether the variable is new or old. This option is called "TESTING". According to Gussenhoven, 1 is expressed by a falling tone, 2 is expressed by a falling - rising tone and 3 by a rising tone (though what he actually implies is a low - rise). In another place in the same article (1983a:26-28), Gussenhoven makes clear that fall - rises and rises signal non finality. Nevertheless, they perform different functions.

Lastly, Taylor (1989) gives a critical summary of the approaches of Halliday, Jackendoff and Brazil et al on the dichotomy of falling and falling - rising tones, pointing out the dangers of categorical generalizations in this area.

With regard to MG, the dichotomy between proclaiming and referring tones generally applies. However, the use of the low - rising, as a referring tone, seems to be more frequent in MG than in E (see following pages).

6. 6. 1 NSMG WITH THE GREEK DATA

NSMG were tested from 12 clauses (6 complete and 6 incomplete) included in unit one and from a variable number of complete and non complete clauses collected from unit three.

The Greek text consisted of various types of clauses/phrases such as: co - ordinate clauses, subordinate clauses, one non restrictive relative clause and a limited number of temporal clauses conveying non complete meaning.

An effort was made to select examples where the majority of NSMG had used a brief or a v. slight pause for the production of unfinished clauses. In this way, the results would be more indicative of the general intonational tendency for the production of this type of clauses. Therefore, the expectation was that a brief or a v. slight pause would follow unfinished clauses/phrases. In complete meaning, simple (non

compound) declarative clauses/phrases were chosen.

As far as unit three is concerned, main and non main clauses were selected. From these data I have excluded: 1. clauses/phrases which included listing of items because "listing" is examined separately, 2. clauses/phrases which express "reservation" for the same reason as in 1 and 3. those unfinished clauses/phrases which had no respective complete clause/phrase. In this way I tried to keep a balance between complete and incomplete clauses, 4. clauses which were interrupted more than once by various type of parenthetical clauses. Such clauses would have been very difficult to transcribe. Simple and compound affirmatives were chosen from this unit.

NSMG WITH MG; A. THE TEXT

COMPLETE CLAUSES	NON COMPLETE CLAUSES/PHRASES
FALL: 264: 100%	LOW - RISING: 159: 60%
TOTAL: 264	FALLING - RISING: 76: 28%
	NO TONE[26]: 13: 5%
	HIGH - RISING: 10: 4%
	RISING - FALLING: 3: 1%
	FALL: 2: 0.75%
	LEVEL: 1: 0.37%
	TOTAL: 264

Table 16

DISCUSSION

As shown from the above results, in the incomplete clauses/phrases of the text the majority of NSMG chose a low - rising tone while fewer NSMG chose a falling - rising tone. The other tonal choices in the rest of

the clauses were really marginal. From the 6 unfinished clauses/phrases of the text, 3 were produced with a low - rising tone by most NSMG. As for the other 3, their answers fluctuated between a falling - rising and a low - rising tone. Consider the following indicative cases:

(216) prin apo merika ˏXRONJA, / (40/44 NSMG - "Some years ago,")

(217) meta tin opera kje to ˋRAΔIO ˏSITI, / (38/44 NSMG - "After Opera and Radio City,")

With regard to clauses expressing a complete meaning, a fall was used by all NSMG.

NSMG WITH MG; B. THE CONVERSATION

COMPLETE CLAUSES	NON COMPLETE CLAUSES/PHRASES
FALL: 158: 95%	FALLING - RISING:81: 49%
LOW - RISING: 5: 3%	LOW - RISING: 54: 32%
FALLING - RISING: 3: 2%	FALL: 17: 10%
TOTAL: 133	HIGH - RISING: 14: 8%
	TOTAL: 166

Table 17

DISCUSSION

As indicated in table 17, in conversational style, the results changed: in non complete clauses/phrases the falling - rising tone came first in the informants' choices. This does not surprise me as a native speaker of MG. Anyone who overhears a specimen of Greek conversation is struck by the large number of falling - rising intonation movements:

(218) exume kalesi merikus filus mas to ˋVRAΔI ton XRISTU, ΓJENON / (39th NSMG - "We have invited some friends of us for the evening of Christmas Day..." (xristuγjena had been prementioned")

(219) i mama mu ine moˇvδistra / ke exji poli δulja// (30eth NSMG - "My mother is a dress maker and she has alot of work at home")

As shown in table 17, some falls occurred in the non complete clauses of the conversational style. Nevertheless, I hold the view that the use of this tone is very marginal in this area.

6. 6. 2 NSMG WITH THE ENGLISH DATA

With regard to the English data, NSMG were tested from the English text only. As with the Greek text, they were tested from 12 sentences (6 complete and 6 non complete clauses/phrases where the majority of them had used (a brief or a v. slight) pause. The non complete clauses/phrases consisted of subordinate, co - ordinate clauses and temporal phrases.

NSMG WITH E; THE TEXT

COMPLETE CLAUSES	NON COMPLETE CLAUSES/PHRASES
FALL: 264: 100%	LOW - RISING: 110: 42%
TOTAL: 264	FALLING - RISING: 105: 40%
	NO TONE: 21: 8%
	FALL: 16: 6%
	HIGH - RISING: 9: 3%
	LEVEL: 3: 1%
	TOTAL: 528

Table 18

DISCUSSION

As shown from table 18, NSMG presented the same tendency they had presented when producing the Greek text; they produced the majority of the English non complete clauses of the text with a low - rising tone. The use of the falling - rising tone was also quite extensive. In producing this tone, NSMG exhibited the tendency to split the fall and the rise between different words.

This has the effect of appearing to put material into the background, even though there might be no justification for this:

(220) Wilson had `LEFT the ,OFFICE / when she got there// (17th NSMG)

(221) A `FEW minutes ,LATER, / his secretary took Linda in// (12th NSMG)

Lastly, notice that NSMG used more falls in the production of the non complete clauses of the English text than in the production of the same type of clauses of the Greek text. This tendency made NSMG sound more English (see also results obtained from NES below).

6. 6. 3 NES

NES were tested from unit one (same clauses/phrases that NSMG were tested) and unit three.

NES; A. THE TEXT

COMPLETE CLAUSES	NON COMPLETE CLAUSES/PHRASES
FALL: 69: 96%	FALL - RISE/FALL PLUS RISE: 29: 40%
FALL - RISE/FALL PLUS RISE: 3: 4%	FALL: 26: 36%
TOTAL: 72	LOW - RISE: 9: 12.5%
	NO TONE: 8: 11%
	TOTAL: 72

Table 19

DISCUSSION

As revealed from table 19, the falling - rising tone came first in the NES' preference. A certain degree of surprise was caused when 3 NES had used the referring

tone in a clause where no background information had so far been included in the text:

(222) Wilson had `LEFT the ,OFFICE / (2nd, 3rd and 12th NES)

It was also interesting that the use of the falling tone was quite frequent in the production of the English incomplete clauses of the text. This choice made the narration sound rather abrupt and dramatic:

(223) Wilson came through the `DOOR / (2nd, 3rd, 5th, 6th, 7th and 10th NES).

Turning to complete clauses, we notice that the falling tone came first in the English informants' choice. The appearance of the falling - rising tone was really marginal. In fact, it occurred three times and only in one sentence where the second clause had the meaning of an afterthought:

(224) Wilson had left the `OFFICE / when she `GOT THERE// (4 th, 9th and 10th NES).

NES; B. THE CONVERSATION

COMPLETE CLAUSES	NON COMPLETE CLAUSES/PHRASES
FALL: 41: 93%	FALL: 22: 50%
FALL - RISE/FALL PLUS RISE: 3: 7%	FALL - RISE/FALL PLUS RISE: 20: 45%
TOTAL: 44	LOW - RISE: 1: 2%
	LEVEL: 1: 2%
	TOTAL: 44

Table 20

DISCUSSION

As shown from the above results, in conversational style the most common tone for non complete clauses from NES was a fall. The falling - rising tone also came high in their preferences. The choice of the falling tone was really striking in co - ordinate clauses; out of 27 such clauses appearing in unit three 18 were produced with a fall:

(225) Some of them have a `TWO weekly block / and then we get into `CLINICS// (10th NES)

(226) I went to work on Friday \NIGHT / and I did part time \AGENCY// (2nd NES).

As far as complete clauses are concerned, the tendency of NES was straightforward: the falling tone was (almost) exclusively used.

CONCLUSIONS

a. Both languages exhibit remarkable similarity in the way they distribute information in written and oral speech; clauses/phrases which express non finality are related to rising tones while clauses expressing complete meaning are linked to falling tones.

b. In MG the low - rising and the falling - rising tones can be regarded as referring tones (in Brazil's terms) because both of them can refer backwards on S's and H's shared knowledge in clause/phrases which express a non complete meaning. In E the fall - rise is the most frequent tone in such clauses/phrases and often has a referring function while the use of the low - rise is marginal and is more related to testing information (in Gussenhoven's sense).

c. In MG the use of different nuclear tones for the production of unfinished clauses/phrases involves a stylistic difference; the low - rising tone is (almost) exclusively used in narrative style while in conversational style NSMG tend to use more the falling - rising tone. In E, the above mentioned stylistic difference is not so striking; the general tendency is to use a falling - rising or a falling tone in non complete clauses/phrases.

The results obtained from the data of NES (incomplete clauses/phrases) make Brazil's categorical distinction (falling: proclaiming , falling - rising: referring) rather problematic; with regard to proclaiming tone and completeness, the results showed that no absolute generalization can be drawn. Especially in conversational style we should allow some space for non complete clauses to be produced with a falling tone (see also table 21 and 22).

d. In clauses which express completeness both languages make use of the falling tone (almost exclusively, see also table 22).

e. With regard to NSMG and the English data, the process of interference again became obvious as most clauses/phrases were produced with a low - rising tone

in the text. The use of this tone was common in all three groups of NSMG.

	FALLING	FALLING - RISING	RISING
MG	proclaiming	referring	referring
	complete meaning	non complete meaning	non complete meaning
E	proclaiming /referring	referring	testing/referring to a lesser extent
	complete/ non complete meaning	non complete meaning	non complete meaning

Table 21

MG	E
NON COMPLETE CLAUSES	NARRATIVE STYLE
low - rising	falling - rising fall
NON COMPLETE CLAUSES	CONVERSATIONAL STYLE
falling - rising low - rising to a lesser extent	fall falling - rising
COMPLETE CLAUSES;	NARRATIVE AND CONVERASTIONAL STYLE
falling	falling

Table 22

6. 7 CLAUSES/PHRASES WHICH CONVEY CLOSED AND OPEN LISTING IN E AND MG

INTRODUCTION

The above dichotomy covers cases where in both languages some sort of enumeration (listing) of items was involved. Listing also covers cases where various actions (different verbs) took place, all of them combined in one clause. Thus my experimental data consist of phrases with various lexical items as well as clauses with different verbs, such as:

(227) exume kjalus kjinimatoɣrafus: to ˌEBASI,/ to Aˌθ INEON, / to ETUˌAL...// [LEXICAL ITEMS/PHRASE] ("We have also other cinemas: Embassy, Atheneum, Etual..." - all NSMG)

(228) θa stolisume to ˌΔEDRO, / θa rθune fili mas sto ˌSPITI... // [DIFFERENT VERBS IN ONE CLAUSE] ("We will decorate the Christmas tree, some friends of ours will come to the house...")

6. 7. 1 NSMG WITH THE GREEK DATA

NSMG were tested from 4 phrases which appeared in the text. Out of these, 2 phrases conveyed closed listing and 2 phrases open listing. The basic guide to make the informants produce these phrases according to the experimenter's expectations (closed listing: rising tone in all except the last item of the list, open listing: rising in all items of the list) was the punctuation cues which were included in the text (full stops, commas and dots). The same expectations were expressed through the punctuation cues which were included in the 3 sentences of unit two (2 clauses expressed closed listing and 1 open listing). Lastly, some evident examples of closed and open listing were found in unit three (spontaneous conversation). The results are as follows:

NSMG WITH MG; CLOSED LISTING

LOW - RISING	325	50%
FALL (ON THE LAST ITEM OF THE LIST)	191	28%
NO TONE	71	10%
HIGH - RISING	40	6%
LEVEL	31	5%
FALLING - RISING	5	0.75%
FALL (BEFORE THE LAST ITEM OF THE LIST)	1	0.15%
TOTAL	664	

Table 23

DISCUSSION

The above table shows that the low - rising tone was the nuclear tone which was mostly used by NSMG for the production of non final items in closed listing. The use of the falling tone in this type of clause /phrase is (almost) exclusively related to the last lexical item of the list (all subjects had used a fall in producing this item). It was also

interesting that some low - rising tones had a low starting point and then raised until middle level, that is, they were a combination of the low - rising and the middle level tone. Nevertheless, since they were phonetically very similar to the usual type of the low - rising tone, I included this allotone in the category of the low - rising tone:

(229) θa stolisume to ↗SPITI, / θa kanume to ↗ ΔEDRO...// ("We will decorate the house, we will do the Christmas tree..." - 17th NSMG)

Where a high - rising tone occurred it was mostly on the penultimate item, signalling that the end of the list is near and maybe carried something of an impatient overtone:

(230) exume na psonisume ˌΓΑΛΑ, / PSOˌMI, / ΓJAˊURTI kje ˋFRUTA // (We have to buy milk, bread, yogurt and fruit - 3rd NSMG)

NSMG WITH MG; OPEN LISTING

LOW - RISING	298	64%
LEVEL	50	11%
FALL (ON THE LAST ITEM OF THE LIST)	38	8%
NO TONE	34	7%
FALLING - RISING	33	7%
HIGH - RISING	13	3%
TOTAL	466	

Table 24

DISCUSSION

Table 24 shows that the low - rising nuclear tone came, again, first in the Greek informants' choice This number refers to all items of the list. The use of other nuclear tones was really marginal. All falling tones which appeared came from the last item of the list of two clauses/phrases only. The NSMG who used a fall in these clauses/phrases appeared to be immune to punctuation:

(231) to embasi, / to aθineon, / to ETU ˋAL//

(232) exo stafilja, / ksinomila, / ˋFRAULES//

Also, other things being equal, the (mid) level tone was used more in open than in closed listing.

Another interesting tone which appeared here is a special type of falling - rising tone which had a falling starting point and ended with middle level pitch. This was a combination of falling - rising and middle level tone and it was included in the falling - rising tone:

(233) XAR$^{\vee>}$TJA ᵒpezume,/ ta $^{\vee>}$ KALADA ᵒleme...// ("We play the cards, we say Christmas songs..." - 17th NSMG)

This tendency was also observed in single words:

(234) exo δjaleksi $^{\vee>}$ΓJERMANIKA, / $^{\vee>}$ITALIKA...// ("I have chosen German, Italian..." - 8th NSMG)

It should also be stated that this allotone of the falling - rising tone did not occur in closed listing. Therefore, it is quite interesting that in MG there seems to exist a relationship between the type of listing and the nuclear tone with which listing is

conveyed; sometimes, if the first two or three nuclear tones are given the last tone can be predicted and so one can anticipate whether open or closed listing is involved. For instance, level tones have a high frequency of occurrence with open listing; if two level tones are produced it is probable that the last item of the list will be produced with another level tone (open listing).

On the other hand, if H has just heard two or three low - rises he/she cannot be sure whether the last item of the list is going to be a fall (closed listing) or not (open listing). Nevertheless, it is probable that if the last item of the list which has been preceded by low - rising tones is not a fall it will be another low - rise (not a level or a falling - rising tone). Lastly, I should mention the tendency of some NSMG to omit nucleus placement on one item of the list, when the list consists of more than two items. In most cases the item which is produced without a nuclear tone is the penultimate item of the list:

(235) i KA,REKLES , / ta TRA,PEZJA, / ta skamnakia kje i POLI,θRONES / vriskode E`ΔO// (21st NSMG)

(236) exume na psonisume ,ΓALA, / PSO,MI, / γjaurti kje `FRUTA// (1st NSMG)

6. 7. 2 NSMG WITH THE ENGLISH DATA

NSMG were tested from the 3 clauses which appeared in unit two, that is, 2 clauses conveying closed listing and 1 clause with open listing. No clause/phrase expressing any sort of listing appeared in unit one.

Punctuation marks were, again, the main guide to the correct interpretation and production of these sentences according to the experimenter's expectation (closed listing: rising in all except the final item, open listing: rising in all the items of the list).

NSMG WITH E; CLOSED LISTING

LOW - RISING	167	49%
FALL (ON THE LAST ITEM OF THE LIST)	87	26%
NO TONE	41	12%
LEVEL	23	6%
HIGH - RISING	17	5%
FALLING - RISING	3	0.8%
FALL (BEFORE THE LAST ITEM OF THE LIST)	1	0.29%
TOTAL	339	

Table 25

DISCUSSION

As the results show, the low - rising tone came, again, first in the choices of NSMG in closed listing. The falling was (almost) exclusively related to the final item of the closed list:

(237) They have ,APPLES, / ,GRAPES and `STRAWBERRIES//
(4th NSMG)

(238) ,MARY, /,JOHN,/ ,PETER and ,TOM are `STUDENTS//
(15th NSMG)

As with the Greek data, some NSMG tended to omit nucleus placement on the penultimate item of the list:

(239) ,MARY, / ,JOHN, / Peter and ,TOM / are
`STUDENTS// (20 th NSMG)

NSMG WITH E; OPEN LISTING

LOW - RISING	87	50%
LEVEL	47	27%
HIGH - RISING	21	12%
FALL (ON THE LAST ITEM OF THE LIST)	17	9%
FALLING - RISING	3	1%
TOTAL	175	

Table 26

DISCUSSION

The above table shows that the low - rising tone came, again, first in the choice of the Greek informants. More level tones were obtained from open than closed listing while the low to mid level realisation of the low - rising tone appeared with open listing only:

(240) They have >APPLES, / >GRAPES, / >APRICOTS, / > STRAWBERRIES...// (9th NSMG)

(241) They have↗APPLES, /↗GRAPES, /↗APRICOTS,/ ↗STRAWBERRIES...// (29th NSMG)

With regard to the combination of tones for the production of the English data, the following points should be stated:

In closed and open listing NSMG exhibited a regular tendency to use just one type of nuclear tone throughout the production of the enumeration. First in their choice came consecutive low - rising tones. The combination of low and high rising tones and the use of consecutive level tones was also quite frequent. Alternatively, NSMG used a number of low to mid level tones, one after the other. As the Greek informants made similar tonal choices when producing this type of

clause in MG and in E, we may assume that they transfered the nuclear tones they had used in MG for the production of similar clauses into E. In any case, at this point we have to do with positive transfer since the results obtained here are close to the results obtained from the control group (see following pages). The above points also justify why no unexpected sentences occurred in this particular area.

6. 7. 3 NES

With regard to the performance of NES, apart from the three clauses of unit two evidence came from relevant clauses/phrases which were picked up from unit three.

NES; CLOSED LISTING

FALL (ON THE LAST ITEM OF THE LIST)	33	28%
LOW - RISE	31	26%
LEVEL	17	14%
NO TONE	16	14%
HIGH - RISE	9	7%
FALL - RISE	8	7%
FALL (BEFORE THE LAST ITEM OF THE LIST)	3	2%
TOTAL	117	

Table 27

DISCUSSION

The results show that in closed listing the majority of clauses/phrases were produced with the low - rise nuclear tone (the use of the falling tone mainly refers to the last item of the closed list):

(242) They've got to be ,MATHS / ,PHYSICS / WHA\TEVER// (6TH NES)

NES; OPEN LISTING

LEVEL	33	62%
LOW - RISE	11	21%
HIGH - RISE	5	9%
FALL (ON THE LAST ITEM OF THE LIST)	2	4%
FALL - RISE	2	4%
TOTAL	53	

Table 28

DISCUSSION

As shown from the above table, in open listing, the level tone seems to be the most frequent tone:

(243) My mother stuffs the >TURKEY / she does the Christmas > PUDDING // (7th NES)

CONCLUSIONS

Both languages exhibit considerable similarities in the way they indicate closed and open listing; the falling tone is used in closed listing while rising or level tones are used in open listing.

b. As far as closed listing is concerned, NSMG undoubtedly prefer to use a low - rising tone in non final items while the last item of the list is produced with a fall. The same tendency is generally carried by NSMG when they produce clauses/phrases which indicate closed listing in E. NES also tend to use the low - rise tone in closed listing.

c. In open listing, NSMG also use the low - rising tone. The level tone is more frequent here than in closed listing. This tendency is maintained when NSMG produce similar clauses/phrases in E. On the other hand, NES seem to prefer the use of level tones in this type of clause /phrase .

d. NSMG also seem to agree with NES in the way they combine the nuclear tones of the items of the enumeration: generally speaking, there is a tendency to use many (low) rising tones together. The same thing holds true for level tones.

e. As revealed from these data (mainly NSMG), two allotones of the low - rising and the falling - rising tones appeared; both of them combine the rising and the level tone.

f. In both languages most items of the list take a separate nuclear tone and (usually) a separate (brief or very slight) pause. The penultimate item, however, may not carry a separate nuclear tone.

NSMG WITH MG; CLOSED LISTING

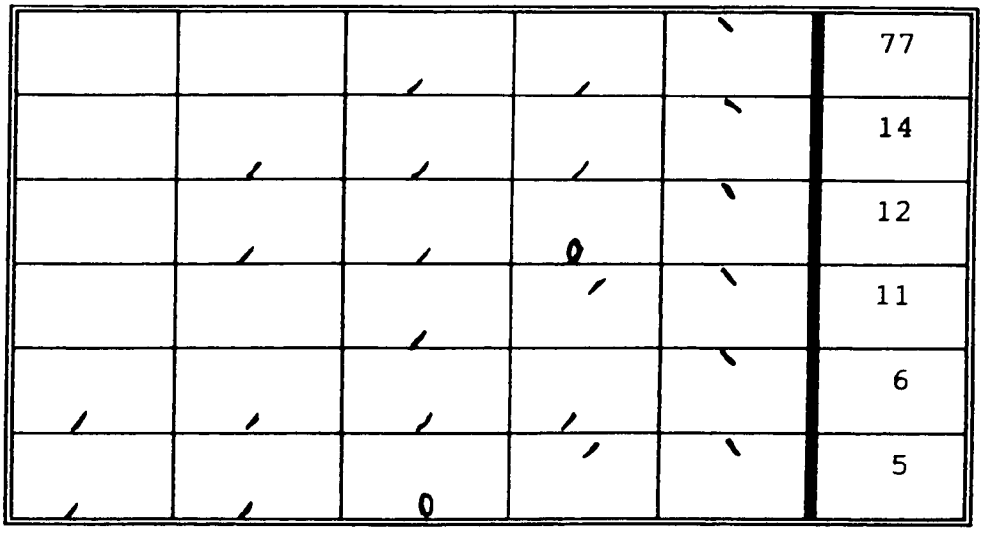
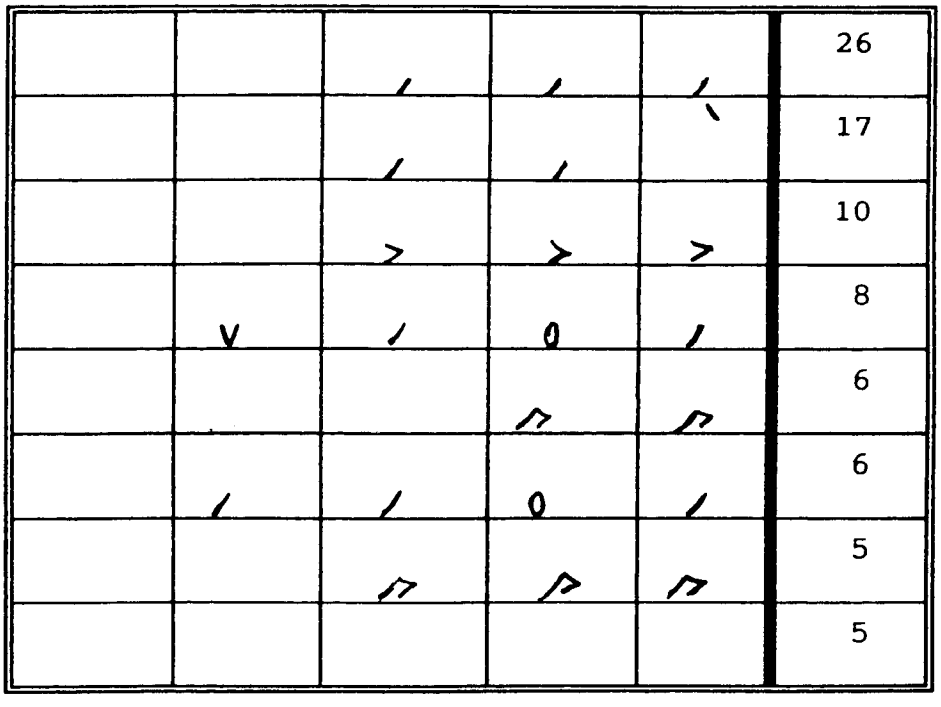


Table 29

Tabulation of the most frequent combination of tones which occurred in two/more items[27]

NSMG WITH MG; OPEN LISTING



		˥	˥	˥	26
		˥	˥	˥˧	17
		˥˩	˥˩	˥˩	10
	˧˥	˥	˧	˥	8
			˥˧	˥˧	6
	˥	˥	˧	˥	6
		˥˧	˥˧	˥˧	5
					5

Table 30

Tabulation of the most frequent combination of tones which occurred in two/more items

NSMG WITH E; CLOSED LISTING

		/	/	\	24
/	/	0	/	\	17
/	/	/	/	\	7
		/	/	\	6
		>	>		6

Table 31

Tabulation of the most frequent tones which occurred in two/more items

NSMG WITH E; OPEN LISTING

				9
				9
				8
				5

Table 32

Tabulation of the most frequent combination of tones which occurred in more than two items

NES; CLOSED LISTING

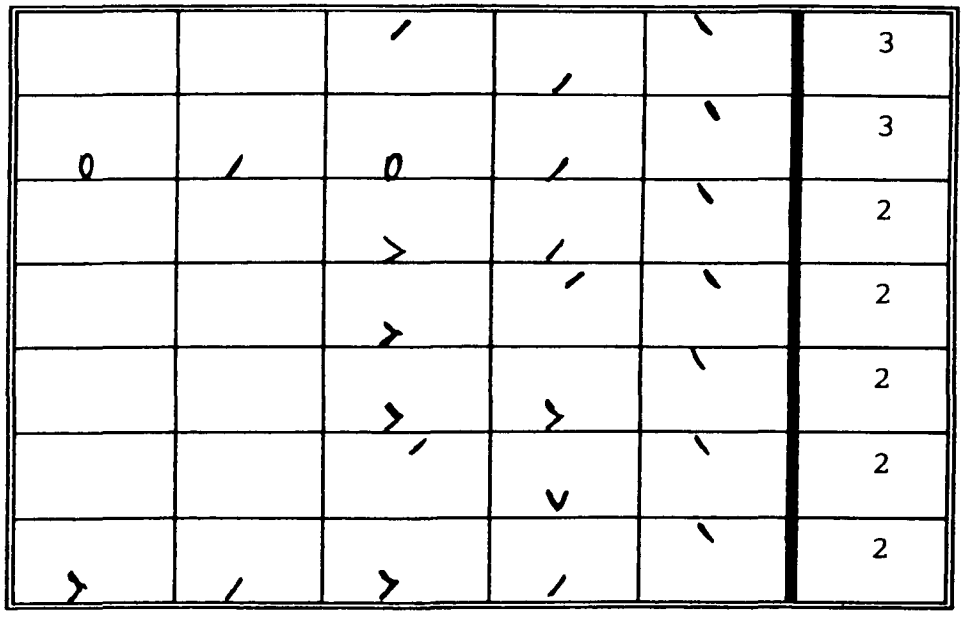


Table 33

Tabulation of the most frequent combination of tones which occurred in two or more items

NES; OPEN LISTING

>	>	>	>	5
		>	>	2
>	/	v	\	2
/	/	/	/	2

Table 34

Tabulation of the most frequent combination of tones which occurred in two or more items

6. 8 NUCLEUS PLACEMENT ON THE RIGHTMOST ITEM AND CONTRASTIVE STRESS IN E AND MG

INTRODUCTION

The aim of this part of chapter 6 is to reveal - through the data - whether MG and E make use of nucleus placement on the last lexical item (in unmarked tonicity) and nucleus shifting (in marked tonicity). For this purpose, the experimenter chose a number of sentences from unit one, the text, read in Greek and in E. No evidence was collected from unit two because the sentences were not preceded by a context and the answers of the informants in this area would vary a lot. Also, no evidence was collected from unit three, the spontaneous conversation, because it was thought difficult to judge what was old and background information.

All the sentences considered had an open class lexical word as their final item[28]. Under these conditions, early nucleus placement (marked tonicity) indicates that some material of the sentence was understood as background information. Recall that in either language an item may be considered as part of the background (even if not strictly mentioned previously) if it is implied or included by what has preceded. Also, apart

from the purely theoretical aspect, the experimenter's expectation of what should be considered old/background information in the Greek text was based on her personal intuition as a NSMG.

6. 8. 1 NSMG WITH THE GREEK DATA

18 simple and complex sentences (only statements) where the nucleus was expected to fall on the last lexical item and 8 simple and complex sentences where the nucleus was not expected to fall on the last lexical item were chosen from the text.

NSMG WITH MG

SENTENCES WITH NUCLEUS ON LAST LEXICAL ITEM	787	99%
TOTAL NUMBER OF SENTENCES WHERE UNMARKED TONICITY WAS EXPECTED	792	

Table 35

NSMG WITH MG

SENTENCES WHERE THE LAST LEXICAL ITEM WAS DEACCENTED IN THE EXPECTED WAY[29]	178	50.5%
TOTAL NUMBER OF SENTENCES WHERE MARKED TONICITY WAS EXPECTED	352	

Table 36

DISCUSSION

Tables 35 and 36 show that NSMG exhibited a straightforward tendency to put the nucleus on the rightmost item, in cases where the particular item was regarded as new information. Very occasionally, some NSMG failed to place the nucleus on the rightmost item although this item had not occurred previously in the text (5/792 such cases occurred). As a result, these sentences sounded unnecessarily emphatic, they were idiosyncratic and subject specific. The following is an example of unexpected marked tonicity:

(244) prin apo merika xronja kapji `ROTISAN mja omaδa arxitektonon sto dalas// ("Some years ago, some people

asked a certain number of architects in Dallas" - 8th NSMG)

With regard to the cases where marked tonicity was expected, a little more than half were produced with the nucleus before the last lexical item. In example (245) below minima ("message") has not been mentioned before in the text, nevertheless, it was deaccented by the majority of NSMG because of the overall context provided by the immediately previous sentence:

(245) i elines epixjirimaties ˋEPJASAN to minima// ("The Greek enterprisers got the message")

(246) iδika stin eparxjia POˋLI liγa praγmata exun alaksi// ("especially in the province very few things have changed")

In e.g 246 the nucleus had the tendency to fall on poli ("very"). This may seem a bit odd because liγa and praγmata could well have attracted the nucleus. In fact, this example is quite representative of a number of words with sentimental or quantitative value that tend to attract the nucleus in MG and so the example is counted as one where marked tonicity is expected.

6. 8. 2 NSMG WITH THE ENGLISH DATA

With regard to the English data, the experimenter chose 11 simple and complex sentences (statements only) where the nucleus was expected to fall on the last lexical item and 5 simple and complex sentences (statements) where the nucleus was expected to be deaccented. In the last case, the words which were expected to be deaccented were believed to belong to S's background information (all rightmost items had been prementioned in the text).

NSMG WITH E

SENTENCES WITH NUCLEUS ON LAST LEXICAL ITEM	470	97%
TOTAL NUMBER OF SENTENCES WHERE UNMARKED TONICITY WAS EXPECTED	484	

Table 37

NSMG WITH E

SENTENCES WHERE LAST LEXICAL ITEM WAS DEACCENTED IN THE EXPECTED WAY	94	43%
TOTAL NUMBER OF SENTENCES WHERE MARKED TONICITY WAS EXPECTED	220	

Table 38

DISCUSSION

The above results show that NSMG faced no difficulty in placing the nucleus on the last lexical item when dealing with the English text.

In marked tonicity NSMG proceeded to deaccentuation of the rightmost item quite regularly. Nevertheless, they were more successful in manipulating nucleus placement in unmarked tonicity. This should not surprise the reader; although they were given sufficient time to prepare the text some NSMG faced a number of difficulties in making quick decisions concerning deaccentuation, especially in cases where there was repetition through the use of a different

word/expression. Thus sentences 247, 248 and 249 triggered more often deaccentuation than sentences 250 and 251 (see below) because in the former sentences (247, 248 and 249) the words "job" "worked" and "before" had been prementioned whereas in the latter sentences (250 and 251) the lexical items "office" and "questions" were not repeated in the text but the context strongly implied deaccentuation:

(247) She was afraid she `HADn't worked in this job before//

(248) She was even more sure that she would `NOT get the job//

(249) It seemed she `HAD got the job after all//

(250) Wilson had left the office when she `GOT there//

(251) Wilson asked her some `MORE questions//

As also revealed from the data, the lower - post lower group distributed tonicity in a way which resembled more the NES'performance than the two other groups of learners. Nevertheless, it must be stated that - as with the Greek data - the performance of all groups was better in the area of unmarked than marked

tonicity:

UNEXPECTED SENTENCES WHERE NUCLEUS FAILED TO FALL ON THE LAST LEXICAL ITEM IN E BY NSMG: UNMARKED TONICITY

D - PRELOWER GROUP	9/132	7%
LOWER - POST LOWER GROUP	2/187	1%
UNIVERSITY GROUPS	3/165	2%

Table 39

UNEXPECTED SENTENCES WHERE DEACCENTUATION OF LAST LEXICAL ITEM FAILED TO TAKE PLACE IN E BY NSMG: MARKED TONICITY

D - PRELOWER GROUP	39/60	65%
LOWER - POST LOWER GROUP	40/85	47%
UNIVERSITY STUDENTS	47/75	62%

Table 40

6. 8. 3 NES

SENTENCES WITH NUCLEUS ON LAST LEXICAL ITEM	128	97%
TOTAL NUMBER OF SENTENCES WHERE UNMARKED TONICITY WAS EXPECTED	132	

Table 41

SENTENCES WHERE LAST LEXICAL ITEM WAS DEACCENTED IN THE EXPECTED WAY	32	53%
TOTAL NUMBER OF SENTENCES WHERE MARKED TONICITY WAS EXPECTED	60	

Table 42

DISCUSSION

Tables 41 and 42 show that the performance of NES resembled the performance of NSMG in the Greek as well as the English text: in unmarked tonicity the nucleus regularly fell on the rightmost item. As with NSMG, some sentences were unexpectedly produced with the nucleus before the last lexical item although the deaccented rightmost word had not been prementioned, as in eg 252 below:

(252) He continued with a `NICE easy `GOING tone of voice// (two nuclei - 2nd NES)

In marked tonicity, most sentences were produced with deaccentuation of the rightmost item, nevertheless, a big number of sentences still failed to be produced in this way and the nucleus remained on the last lexical item, as in:

(253) She was afraid she hadn't worked in this job BE`FORE// (expected deaccentuation on "hadn't" failed to take place - 2nd NES)

Lastly, in e.g 254 below deaccentuation of "job" did not operate in the expected way:

(254) It seemed she had got the job`AFTER all// (2nd NES)

UNEXPECTED SENTENCES; NES

SENTENCES WHERE NUCLEUS FAILED TO FALL ON LAST LEXICAL ITEM	4/132	3%
SENTENCES WHERE DEACCENTUATION OF LAST LEXICAL ITEM FAILED TO TAKE PLACE	28/60	46%

Table 43

CONCLUSIONS

a. In both languages the nucleus has a regular tendency to fall on the last lexical item when this particular item is presented by S as new information. On the other hand, when the last lexical item is considered by S as to belong to H's background knowledge the default principle generally operates in both languages.

b. As observed from the data, S's of both languages performed better when dealing with unmarked than with marked tonicity. This might be explained as a result of S's failure to respond to experimenter's requirement for producing the text as in real communicative setting.

c. It was observed that in MG some words (as, for instance, adverbs of manner or quantity) have a tendency to attract the nucleus, although they are not the last lexical items of the sentence. This observation invites further research on the particular area.

d. The lower - post lower group gave the smallest number of unexpected answers in unmarked and marked tonicity.

6. 9 STATEMENTS WITH A CONSIDERABLE DEGREE OF EMOTIONAL TENSION AND STATEMENTS WITH NO OBVIOUS EMOTIONAL TENSION IN E AND MG

INTRODUCTION

The above dichotomy may look rather problematic if one takes into consideration the point of view according to which any type of nuclear tone can occur with any sort of sentence type.

The above distinction is meaningful only with regard to the experimenter's expectations for each sentence according to the directions given to the informants (see also below) and according to the punctuation cues which were included in unit one, the Greek and the English text.

By "emotional tension" I simply mean cases where S has some reason to express surprise or an impressed overtone, agitation towards a particular event or a certain degree of dislike.

With regard to punctuation cues, the main aim was to check whether and to what extent punctuation triggers some degree of emotional intensity (as expressed through intonational means).

A small number of statements, all of them in the declarative form were collected. In the texts and the prescribed sentences the informants were told to produce these statements in their natural/everyday tone of voice without expressing an emotional overtone. All informants were also asked to produce a limited number of other sentences with some sort of emotional tension. NSMG and NES were also tested from unit three, the spontaneous conversation. Lastly, additional evidence with regard to this area, can be found in the perception test (chapter 7).

6. 9. 1 NSMG WITH THE GREEK DATA

5 declarative statements conveying unmarked/neutral overtone were chosen from unit one, the text, 1 declarative statement from unit two, the prescribed sentences, and a variable number of the same type of sentences from unit three, the spontaneous conversation.

STATEMENTS WITH NO OBVIOUS EMOTIONAL TENSION; NSMG WITH MG

UNIT ONE AND TWO	UNIT THREE
LOW - FALL: 196: 74%	LOW - FALL: 106: 34%
HIGH - FALL: 68: 26%	HIGH - FALL: 204: 66%
TOTAL: 264	TOTAL: 310

Table 44

DISCUSSION

The above results show that more low - falling tones were produced in narrative style than in spontaneous conversation. In the latter type of speech the majority of statements were produced with a high - falling tone. These results are interesting keeping in mind that we are dealing with non marked emotional state; it may be the case that in face to face interaction NSMG think that with the high - falling tone they attract the attention of I more effectively. The low - falling tone was often accompanied by creaky voice, a particularly striking feature in male speech. Prenuclear patterns vary between high and low level:

(255) i zo'i tus kji°luse ˌIREMA// (44th NSMG)

(256) i zoˌi tus kji°luse ˌIREMA// (41st NSMG - "they were leading a peaceful life")

Now with regard to emotional tension, the experimenter collected 10 declarative statements included in unit one, the text, 2 statements from unit two, the prescribed sentences, and a non fixed number of the same type of statements found in unit three, the spontaneous conversation. The text included a number of statements that were expected to convey some degree of emotional intensity such as surprise, general exclamation and disbelief. In the sentences one statement was supposed to express surprise and one just emphasis. In the spontaneous conversation the Greek informants had expressed various feelings such as agitation, dislike, surprise, excitement, etc.

STATEMENTS WITH A CERTAIN DEGREE OF EMOTIONAL TENSION; NSMG WITH MG

HIGH - FALL	269	53.5%
LOW - FALL	193	35%
EXTRA HIGH - FALL	36	6%
NO TONE	17	3%
FALLING - RISING	5	0.9%
RISING - FALLING	5	0.9%
RISING - FALLING - RISING	1	0.18%
TWO NUCLEI	1	0.18%
TOTAL	527	

Table 45

DISCUSSION

Table 45 shows that NSMG undoubtedly prefer to use the high - falling tone for the production of statements expressing a marked emotional overtone. The low - falling tone is also another alternative whereas the use of other tones does not seem to be very frequent. In one clause of the text the exclamation mark was in

parenthesis and this inhibited the use of a tone by 17 NSMG (see also table 45). This and the use of the low - falling tone may suggest that the presence of an exclamation mark by itself in written speech does not always trigger the expression of emotional tension in terms of intonation in MG; NSMG seem to give special attention to the meaning of the particular sentence expressed verbally.

The high - falling tone has a high frequency of occurence with statements expressing surprise, as found from the data:

(257) pire to meɣalitero vaθmo stin ˋTAKSI tu// ("He got the highest grade in his classroom").

The use of the falling - rising tone is accompanied with a questioning as well as impressed overtone in statements which carry a certain degree of emotional tension. In such cases the statement often has the deeper meaning of an echo question and the falling - rising tone has the form of a stylised fall:

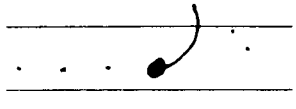
(258a) pire ton meɣalitero vaθmo stin ˥TAKSI tu// (4th NSMG)

Another tendency was to place the nucleus before the last lexical item although this item had not been prementioned. 18 such cases were observed; one of them is the following:

(259) proɣramatizun na prosferun iperpoliteli sigrotimata sta opia θa iparxun bar, estiatoria `KJE komotiria// ("They plan to offer very luxurious buildings in which there will exist restaurants, bars and coiffure salons" - 17th NSMG)

Lastly, it is worth mentioning that the rise - falls which appeared here resemble the English rise - falls in terms of form: the accented syllable bore a rise and the low pitch was reached by the first syllable of the tail:

(260)



apele ^ fθerosi

6. 9. 2 NSMG WITH THE ENGLISH DATA

The experimenter had collected 5 sentences conveying no particular degree of emotional tension from unit one, the text, and just one sentence of the same type from unit two, the prescribed sentences.

STATEMENTS WITH NO OBVIOUS EMOTIONAL TENSION; NSMG WITH E

UNIT ONE AND TWO		
LOW - FALL	218	82.5%
HIGH - FALL	46	17.5%
TOTAL	264	

Table 46

DISCUSSION

As table 46 shows NSMG used the same tones they had used for the production of the same type of sentences in MG. As with the Greek data, the low - falling tone came first in their choices and this may be an indication of transfer from MG.

With regard to statements which were supposed to convey a certain degree of emotional tension, 4 types were collected from unit one, the text, and 3 types from unit two, the prescribed sentences. NSMG and NES had to rely on the overall context as well as the punctuation cues of unit two and on the punctuation cues and the directions given to them in parenthesis in unit two. In unit one the informants were asked to show fear, disappointment anxiety and relief. In the prescribed sentences the informants were asked to show feelings of surprise, dislike and joy (or excitement).

STATEMENTS WITH A CERTAIN DEGREE OF EMOTION TENSION; NSMG WITH E

UNIT ONE AND TWO		
HIGH - FALL	167	55%
LOW - FALL	80	26%
FALLING - RISING	13	4%
RISING - FALLING	13	4%
EXTRA HIGH - RISE	11	4%
NO TONE	8	2%
TWO NUCLEI	8	2%
LOW - RISING	3	1%
TOTAL	303	

Table 47

DISCUSSION

As the above table shows, NSMG coped with the different psychological states they expected to express by using basically two tones, namely, a high - falling and a low - falling nuclear tone, that is, they showed no deviation from the tonal choices they had made for

the production of the same type of sentences in MG. The use of other tones was occasional. What is also worth noticing is the ability of the Greek informants to match low and high pitch levels in order to achieve an emphatic effect:

(261) What an 'awful ˏJOURNEY// (2nd NSMG)

Two of the rise - falls which appeared in this area resembled the Greek type of rise - falls and especially the one with the delayed end. From the native Greek standpoint, a version such as 262 below might be interpreted as a polar question:

(262) He passed his E^XAM// (1st, 43rd NSMG)

The use of the fall - rise and especially the stylised type appeared only in one sentence (see below) conveying a note of disbelief and/or irony:

(263) He passed his E˥˩XAMS// (1st, 3rd, 9th, 11th, 15th, 16th, 22nd 33rd, 37th, 39th, 41st, 42nd and 44th NSMG).

Lastly, notice the use of two nuclear tones as well as deaccentuation of the last lexical item as an indication of emphasis (in 13 sentences the nucleus

was produced before the last lexical item):

(264) How `NICE to `SEE you// (44th NSMG)

(265) How `NICE to see you// (11th, 14th, 15th, 20 th, and 22nd

Concerning the performance of the three groups of NSMG and statements conveying no obvious emotional tension, it was shown that all groups gave a performance almost identical to the English performance in placing the nucleus on the last lexical item and using basically a low and a high - falling tone. In statements which were supposed to express marked emotional state, NSMG also came close to the native (E) performance in using mainly a high - fall. The English - like rise - falls which occurred were almost exclusively produced by the lower - post lower group (8/13).

6. 9. 3 NES

STATEMENTS WITH NO OBVIOUS EMOTIONAL TENSION IN E; NES

UNIT ONE AND TWO	UNIT THREE
LOW - FALL: 41: 57%	HIGH - FALL: 46: 73%
HIGH - FALL: 30: 42%	LOW - FALL: 17: 27%
FALL - RISE: 1: 1%	TOTAL: 63
TOTAL: 72	

Table 48

DISCUSSION

The results obtained from the above table showed that NES have the tendency to use different nuclear tones when dealing with different styles. In particular, in narrative style the tendency was to use primarily the low - fall and to a lesser degree the high - falling tone. On the other hand, in unit three, the spontaneous conversation, the control group used almost exclusively the high - fall.

STATEMENTS WITH A CERTAIN DEGREE OF EMOTIONAL TENSION; NES

UNIT ONE, TWO AND THREE		
HIGH - FALL	52	56%
LOW - FALL	17	18%
RISE - FALL	8	9%
FALL - RISE	7	7%
EXTRA HIGH - FALL	4	4%
TWO NUCLEI	4	4%
LOW - RISE	1	1%
TOTAL	93	

Table 49

DISCUSSION

Table 49 shows that in statements which express a certain degree of emotional tension NES mostly prefer to use a high - fall tone. All statements produced with a low - fall in this area came from unit one, the text, and this may indicate that NES did not give particular attention to punctuation (although they

were asked to).

The number of rise - falls was smaller than expected, but this can be a result of lack of relevant data. In fact, all rise - falls were produced in cases where NES were asked to indicate surprise:

(266) He passed his E ^XAMS// (2nd, 3rd, 7th, 8th, 9th, 10th and 11th NES)

Occasionally, two nuclei were used as in:

(267) What an `AWFUL `JOURNEY//

CONCLUSIONS

In statements indicating no obvious emotional tension: a. MG and E seem to use similar intonational devices, namely falling nuclear tones. The use of other tones is marginal.

b. In both languages the appearance of the high - or the low - falling tone seems to be related to style: in narrative style the low - fall appears more often while in face to face conversational style NSMG and NES tend to use more high - falls.

c. With regard to tonicity, the nucleus regularly falls on the last lexical item unless there is a need for contrastive stress.

In statements which express a certain degree of emotional tension: a. speakers of both languages use a variety of nuclear tones but the falling tones are far more frequent.

b. The use of the high - fall is more frequent than the use of the low - fall in this type of statements, irrespective of style[30].

c. When surprise (and maybe disbelief) is indicated,

NSMG use more the falling - rising tone whereas in E the same feelings seem to be conveyed with the rise - fall.

d. Lexical devices and, in general, the overall meaning of the sentence seem. to be more important than punctuation cues in expressing emotional intensity through intonational means in both languages.

e. The results obtained from the control group are generally in accordance with traditional literature (Kingdon 1958:243, Cruttenden, 1986:182). O'Connor and Arnold stress more the use of exclamations with the rise - fall while no discussion is realized on the use of falling tones in exclamatory sentences.

f. The present data also revealed that in MG emotional tension is sometimes related to deaccentuation of the last lexical item even though this item is not part of S'and H's shared knowledge[31].

g. The intonational similarity that E and MG exhibit in the production of statements which express marked and unmarked emotional states might have been the main factor which triggered almost native - like (E) performance from all three groups of NSMG.

6. 10 CLAUSES WHICH EXPRESS RESERVATION IN E AND MG

INTRODUCTION

This small chapter covers cases where NSMG and NES expressed some sort of reservation in their speech, either spontaneously (unit three) or after taking particular oral and verbal instructions by the experimenter.

In particular, all informants were asked to produce just one clause from unit two, the prescribed sentences, by expressing reservation. The word "reservation" was included in a sentence which was written in parenthesis after the clause ("please express reservation"). As an additional device to clarify any potential doubt, the clause which was supposed to indicate reservation was also followed by the word "αλλά" (ala) and "but". Informants, in preparing the sentences, were asked to read the particular clause as if ala and "but" followed in their speech but without actually producing these words when tested. No clauses expressing reservation were found in the Greek and the English text.

With regard to unit three, the spontaneous conversation, the experimenter collected cases where the informants had expressed a thought which sometimes had remained unfinished and other times was followed by another clause which explained the reservation of the preceding clause.

The decision of whether a clause was expressing some sort of reservation was made by the experimenter on the basis of the overall meaning of the clause. In all transcribed cases of unit three Ss' reservation was also accompanied by doubt and uncertainty as well as the words "αλλά" and "but" (Nevertheless, not all clauses which were followed by the above words were regarded as reservations).

6. 10. 1 NSMG WITH THE GREEK DATA

NSMG were tested from 1 clause which expressed reservation in unit two and a non fixed number of clauses of the same type which appeared in unit three.

CLAUSES EXPRESSING RESERVATION; NSMG WITH MG

FALLING - RISING	95	94%
FALL	6	6%
TOTAL	101	

Table 50

DISCUSSION

The results above are quite straightforward; NSMG tend to use a falling - rising tone almost exclusively when they express reservations.

A general characteristic of the falling - rising tone in reservations is that it is related to given knowledge and the nucleus often falls before the last lexical item (fall - rise), as in:

(268) simfono me ta PERI`SOTERA apo ta E/TIMATA ala... ("I agree with most of our demands but..." - 39th NSMG) The word "etimata" had been prementioned.

However, there also appeared cases where the falling movement occurred quite early in the clause and this was not related to background information because the last lexical item had not been prementioned, as in:

(269) `EXUME vevea ena EKSOXI, KO ala δen ine na piγjenis ekji ta xristuγjena// ("We <u>have</u> of course a <u>summer house</u> but one shouldn't go there at Christmas" - 21st NSMG)

Another tendency of NSMG was to use the allotonic version of the falling - rising tone which had a falling starting point and ended at about middle level. This pattern gave a business - like and routine overtone to S's speech and it was observed when the word "αλλά" (ala) which followed was produced with a middle level tone:

(270) ^IKSERA oti itan PARA°MIθI / >ALA ... ("I <u>knew</u> it was not <u>true</u> but..." - 37th NSMG)

6. 10. 2 NSMG WITH THE ENGLISH DATA

The informants were asked to produce just 1 clause from unit two, the prescribed sentences.

CLAUSES EXPRESSING RESERVATION; NSMG WITH E

FALLING - RISING	22	50%
FALL	21	48%
LOW - RISING	1	2%
TOTAL	44	

Table 51

DISCUSSION

Table 51 shows that NSMG were divided between the use of a fall and a falling - rising tone, that is, they were less unanimous in their intonational choices with regard to the area of reservations in E. Therefore, we may assume that the majority of NSMG had positively transfered their intonational habits from MG but a substantial number of them might have been confused by the given instuctions and did not respond in the expected way. The unexpected answers came from all groups of NSMG; actually, equal number of falls were found (7 clauses) from each group:

(271) I think what you say is `TRUE... (produced by 21 NSMG)

6. 10. 3 NES

The English informants were tested from 1 clause of unit two, the prescribed sentences, and a variable number of clauses from unit three, the spontaneous conversation.

CLAUSES EXPRESSING RESERVATIONS; NES

FALL - RISE/FALL PLUS RISE	24	92%
FALL	2	8%
TOTAL	26	

Table 52

DISCUSSION

As the results of table 52 show, NES undoubtedly prefer to use a falling - rising tone when they express some sort of reservation:

(272) The park is really ↘GOOD / but the whole area is a bit grotty really// (7th NES)

The use of just 2 falls should be considered

accidental.

CONCLUSIONS

a. This is another area where MG and E exhibit intonational similarities; both languages use exlusively a falling - rising tone in producing clauses which express some sort of reservation.

b. NSMG make extensive use of the falling - rising tone whereby the fall and the rise are realized in different words with the falling movement sometimes starting long before the last lexical item even though no evidence of marked tonicity is given.

c. Most NSMG managed to produce the English clause expressing reservation in the expected way and this may be a result of positive transfer.

6. 11 NEGATIVE AND CONFIRMATORY QUESTIONS IN E AND MG

INTRODUCTION

Negative and confirmatory questions were considered worth discussing because intonation has been regarded as playing a vital role in distinguishing them from negative statements and simple statements respectively (see also Alexander, 1988:255). Therefore, the aim of the experimenter was to find out the devices native speakers of both languages used in order to produce negative and confirmatory questions in MG and E. Also, the experimenter was interested in the performance of NSMG with regard to the English data.

It was decided that these types should be discussed together on the basis of the similarities they bear with each other. In particular, both types express some sort of anticipation of I's answer (positive or negative) with regard to S's question.

In E negative questions have two forms : a. a full form (auxiliary - subject - negative word - verb) and b. a short form (auxiliary - contracted negative form - subject - verb).

In MG negative questions are syntactically identical to negative statements and they are semantically distinguished through intonation only (in spelling negative statements carry a question mark).

We generally ask negative questions in both languages when we are expecting, inviting or hoping for a positive answer, we wish to express disbelief, we want to persuade someone, we want to express annoyance or an exclamation.

Confirmatory (also known as statement) questions have important similarities in MG and E in that they have the same basic grammatical structure as statements. Therefore, in both languages the meaning distinction between statements and confirmatory questions is mainly achieved through tone (see also Alexander, 1988:256). In written speech such questions are followed by a question mark in E but in MG no question mark is used because if so confirmatory questions would be confused with yes/no questions.

In both languages confirmatory questions are used to seek confirmation, expecting agreement with what S is asking. The confirmation is related to what S assumes to be true, or thinks he/she has misheard or imperfectly recalled. On very few occasions S may get

a different to the expected answer.

6. 11. 1 NSMG WITH THE GREEK DATA

NSMG were tested on 1 negative question from unit one, the text, 4 negative questions from unit two, the prescribed sentences, and a variable number of questions of the same type from unit three, the spontaneous conversation. They were also tested on 2 confirmatory questions from unit two and a variable number of confirmatory questions from unit three. The confirmatory questions of these data consisted of sentences which had the syntactic form of statements and negative statements.

NEGATIVE QUESTIONS IN NSMG BY NSMG

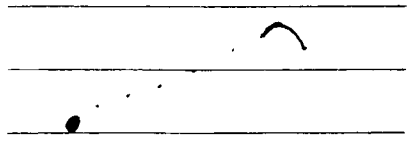
RISING - FALLING	219	98%
FALL	2	0.89%
FALLING - RISING	2	0.89%
TOTAL	223	

Table 53

Table 53 shows that the overwhelming majority of NSMG used a rising - falling tone when producing the Greek negative questions of the experimental data. In fact, the Greek informants treated this type of question as plain yes/no questions in terms of tone choice.

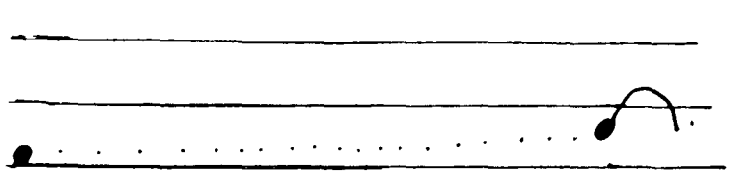
As far as tonicity is concerned, the nucleus regularly fell on δen. In particular, the rising movement started on δen, all the following syllables continued the rising movement and the fall was sustained until tha last stressed syllable of the IG.

(273)



ʌΔe θelis alo kaᵊfe ("Don't you want more coffee?")

The above type of rise - fall was by far the commonest type of rise - fall which occurred in the negative questions of unit one, two and three. Occasionally, the nucleus was placed on the last lexical item and this version intensified the note of incredulity:

(274) 

ˈδe θimase ti orea ixame perasi ekjino to KALO ^KJERI ("Don't you remember what a nice time we had that summer?")

CONFIRMATORY QUESTIONS; NSMG WITH MG

RISING - FALLING	43	42%
FALL	38	37%
FALLING - RISING	21	20.5%
TOTAL	102	

Table 54

DISCUSSION

The above results do not agree with the experimenter's expectations, as they are indicating that the majority of sentences were produced with a rising - falling tone. The choice of this tone made such questions sound like yes/no questions (when they were in the affirmative) and negative questions (when they were in

the negative form). Nevertheless, a close look at the data leads us to the following observation: only the sentences from unit two were produced with a rising - falling tone whereas all sentences from unit three were produced with either a falling or a falling - rising tone. In particular, the relevant data revealed that the tendency of NSMG was to produce the confirmatory questions which had the syntactic form of statements with a falling tone while the confirmatory questions which had the form of negative statements with a falling - rising tone. With regard to tonicity, the general tendency was to place the nucleus on δen or on the very first word of the sentence which usually was a verb. In the latter case, the use of early nucleus is the only cue to distinguish confirmatory questions from statements in which the nucleus usually falls on the last lexical item:

(275) ara 'ΔEN to γrafi o ΓJA,TROS//(so <u>not</u> - it - write - <u>the - doctor</u> - " The doctor does not write it" - 24th NSMG)

(276) 'ΔEN ine kjines etikjetes LI,PON ("They are <u>not</u> common tags <u>then</u>" - 24th NSMG)

(277) ˋEXJIS akusi γja ta nea metra fadazome// ("You have heard about the new measures, I imagine" - 19th NSMG)

(278) θARˋθIS avrio sxolio lipon // ("You will come to school tomorrow then" - 39th NSMG)

Lexical devices like: "λοιπόν" (lipon "so"), "άρα" (ara "therefore"), and stereotypical expressions like "φαντάζομαι" (fadazome "I imagine/suppose") as well as the overall context played a crucial role in identifying confirmatory questions in MG. With regard to context, it was observed that such questions were a short and general repetition of immediately preceding information and did not promote discussion about a new subject.

6. 11. 2 NSMG WITH THE ENGLISH DATA

With regard to the English data NSMG were tested on 4 negative questions and 2 confirmatory questions from unit two, the prescribed sentences. No negative or confirmatory question was found in unit one, the English text.

NEGATIVE QUESTIONS IN E BY NSMG

RISING - FALLING	82	47%
LOW - RISING	38	22%
FALLING - RISING	27	15%
HIGH - RISING	21	12%
FALL	7	4%
TOTAL	175	

Table 55

DISCUSSION

Table 55 shows that a big number of negative questions was produced with a rising - falling tone. As with the Greek data, the prevailing pattern was the one with the nucleus on the negative word. As a consequence of this nuclear choice, 47% of the negative questions of NSMG were heavily marked as non English:

(279)^DON't you remember that tall girl called Jane//

(6th, 10th, 12th, 15th, 18th, 19th, 27th, 28th, 29th, 33rd, 35th, 39th, and 40 th NSMG)

It is also worth pointing out that some NSMG seemed to have no other nuclear choice but the use of their familiar from MG rising - falling tone and they used this tone almost in all sentences. In some other informants the use of the rising - falling tone was less obvious and an effort was made to use more rising tones.

UNEXPECTED SENTENCES IN ENGLISH NEGATIVE QUESTIONS BY NSMG[32]

D - PRELOWER GROUP	32/45	71%
LOWER - POST LOWER GROUP	25/70	35%
UNIVERSITY STUDENTS	25/60	42%

Table 56

DISCUSSION

In comparing the performance of the three groups with the performance of the NES, we notice that the lower - post lower group produced less unexpected sentences than the two other groups. S's of this group made a constant effort to sound more English and they were the ones who used more rising tones than the other

groups:

(280) Aren't you ,HAPPY rise (4th, 41st, 43rd and 44 th NSMG)

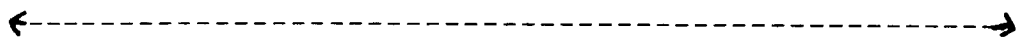
By comparing tables 56 (observed frequency) and 58 below (theoretical frequency), the value of chi - squared = 7. 672802 (p = 0.022).

Some sentences were produced with a rising tone but with the nucleus long before the last lexical item. I considered such sentences as typical tokens of transitional errors whereby the rising - falling tone was abandoned (as an unacceptable tone) but the nucleus was still placed on the contracted negative (and the auxiliary) as a result of interference from the Greek negative questions. Such sentences appeared in the lower - post lower and the university group:

(281) ,WON'T tell me// (4th, 5th, 18th, 21st, 22nd, 25th, 37th and 43rd NSMG)

Schematically, the example given above can be presented in the following way:

UNEXPECTED	INTERLANGUAGE	EXPECTED
FORM FROM	STILL UNEXPECTED	FORM
MG	MG - E	E



^WON't you tell ,WON't you tell me won't you ,TELL me

CONFIRMATORY QUESTIONS; NSMG WITH E

FALL	77	89.5%
FALLING - RISING	6	7%
LOW - RISING	2	2%
RISING - FALLING	1	1%
TOTAL	86	

Table 57

DISCUSSION

As shown from the above table, the overwhelming majority of these sentences were produced with a falling tone. This choice might be explained in terms of positive transfer as the Greek confirmatory questions of unit three were produced with the same tone. Another similarity with the Greek confirmatory

questions is the tendency of NSMG to place the nucleus before the last lexical item:

(282) You are \COMING with us then// (35th, 37th, 41st, 42nd NSMG)

(283) You are \NOT hungry then// (15th, 6th, 17th, 23rd, 24th, 25th, 37th, 38th, 39th, 40th NSMG)

6. 11. 3 NES

NES were tested on 4 negative questions and 2 confirmatory questions from unit two, the prescribed sentences, and on the sentences collected from unit three, the spontaneous conversation.

NEGATIVE QUESTIONS BY NES

FALL - RISE/FALL PLUS RISE	22	44%
FALL	11	22%
LOW - RISE	10	20%
HIGH - RISE	7	14%
TOTAL	50	

Table 58

The above numbers show that a large number of negative questions was produced with a falling - rising tone while the use of other tones was not so striking. This observation together with the results obtained from the performance of NES in polar questions led me to the conclusion that NES have the tendency to treat negative questions exactly like polar questions. This intonational choice does not lead to confusion between the two types of questions because lexico - grammatical devices (auxiliary - subject - verb and auxiliary - subject - negation and verb or auxiliary - contracted negation - subject - and verb respectively) keep them distinct:

(284) Don't you remember that tall girl called ˅JANE// (1st, 2nd, 9th NES)

(285) Aren't you ˅HAPPY// (2nd, 3rd, 8th, 9th, 10th NES)

CONFIRMATORY QUESTIONS; NES

FALL	19	54%
FALL - RISE/ FALL PLUS RISE	16	46%
TOTAL	35	

Table 59

DISCUSSION

What can be gathered from the above table is that NES tend to use a falling as well as a falling - rising tone equally frequently for the production of confirmatory questions. In conversational style the falling tone may be slightly more frequent. As with MG, it was found out that such questions refer to knowledge that both I's share and thus deaccentuation of the last lexical item occurred quite often:

(286) You're ᵛCOMING with us then// (4th, 9th NES)

(287) So they don't come ᵎHOME for Christmas// (10th NES)

Examples like 287 are somehow problematic because the use of the falling tone makes confirmatory questions indistinguishable from statements[33]. In such cases the appearance of words like "then", "so", "surely" and the context of confirmatory questions (such as, a "yes"/"no" answer by I) is crucial for such a distinction.

CONCLUSIONS

a. MG and E use different tonal devices for the production of negative questions while the intonational treatment of confirmatory questions is somehow similar in the two languages.

b. NSMG use a rising - falling tone for the production of negative questions while NES have the tendency to use a falling - rising tone. In both languages the intonational treatment of these questions is similar to polar questions.

c. Confirmatory questions are syntactically formulated like statements in MG and in E and intonation plays a crucial role in distinguishing between these two sentence types. In MG confirmatory questions are produced with a falling tone when the sentence has the

form of a statement while when the sentence has the form of a negative statement the falling - rising tone is used. On the other hand, in E the tendency is to use a falling or a falling - rising tone equally frequently irrespective of whether the question has the form of an affirmative or a negative sentence. In cases where a falling tone is used confirmatory questions are distinguished from statements by means of lexical devices and context. Also, in both languages the function of confirmatory questions is to refer back to part of knowledge that both Ss share and so the item which carries the nucleus is often not the last one in the sentence.

d. In this particular area the process of transfer operated in two forms: in negative questions NSMG transferred the rising - falling tone from MG to E and this choice marked their sentences as non E because the rising - falling tone is not used in E in such types (negative transfer). In confirmatory questions NSMG came close to the English performance by using a falling tone (positive transfer).

e. The lower - post lower group and the university students produced less unexpected negative questions while the D - prelower group produced many unexpected sentences.

6. 12 QUESTION TAGS IN E AND MG

INTRODUCTION

With regard to E, Kingdon (1958:246) states that tags are those added to an utterance already made which consist of a noun or a pronoun as subject and an anomalous finite as predicate in which the finite refers to and takes the verb which is used in the original utterance.

In MG such types of questions consist of two parts, that is, an utterance which carries an expressive force and another short utterance (tag) which shares the same verb with the first utterance. Therefore, in MG tags are characterized by non ellipsis of the verb of the main utterance.

The types as well as functions of the English question tags are numerous. The present study will deal only with some question tags which both languages share, though the intonational choices and the meanings conveyed through them are different[34].

The question tags which were transcribed and analysed in this study can be classified in three categories, according to polarity: a. reversed polarity tags with

the first utterance in the affirmative and the tag in the negative form. b. reversed polarity tags with the first utterance in the negative and the tag in the affirmative form. c. constant polarity tags whereby both utterances are in the affirmative form.

The main aim of the experimenter was to observe how the informants were going to cope intonationally with the above three types of question tags. With regard to NSMG, the experimenter was particularly interested in finding out whether the informants were able to modify their intonation according to the particular meaning the English tags conveyed (certainty/uncertainty - see also following pages).

6. 12. 1 NSMG WITH THE GREEK DATA

The Greek informants were tested on 1 question tag (affirmative - negative) from unit one, the Greek text, 4 question tags (affirmative - negative, negative - affirmative, affirmative - affirmative) from unit two, the prescribed sentences, and a variable number of question tags from unit three, the spontaneous conversation.

The affirmative - affirmative type of question tags consisted of a statement (usually in the affirmative form) to be followed by the word "έτσι" (etsi "is that so", "Am I right to believe that").

In all the above question tags some sort of certainty is expressed by the first utterance to be challenged by the tag. Therefore, although some anticipation of I's answer is generally expected it is also possible that I gets an answer which will be different to his/her expectations. In particular, the first type (affirmative - negative) sounds like a negative question and the second type (negative - affirmative) like a yes/no question. The third type maybe implies more confirmation to S but there also exists a possibility for contradicting S's statement. It is also important to state that in the Greek tags there exists only one possibility for tone choice and thus this variable is not available to signal the degree of S's certainty with regard to the truth of his/her statement.

QUESTION TAGS IN MG BY NSMG

AFFIRMATIVE - NEGATIVE
RISING - FALLING: 94/95: 99%
FALLING - RISING: 1/95: 1%
NEGATIVE - AFFIRMATIVE
RISING - FALLING: 89/91: 98%
FALLING - RISING: 1/91: 1%
LOW - RISING: 1/91: 1%
AFFIRMATIVE - AFFIRMATIVE
RISING - FALLING: 60/62: 97%
FALLING - RISING: 1/62: 1%
HIGH - RISING: 1/62: 1%
TOTAL: 248

Table 60

Table 60 shows that NSMG have the tendency to treat Greek question tags exactly like polar questions and negative questions. This tendency applies to all styles (unit one, two and three). Therefore, it seems that the rising - falling tone is the only acceptable tone in the Greek tags (in my judgment, the appearance of few other tones was really accidental). The above observation leads to the conclusion that question tags are lexically as well as grammatically determined in MG and intonation plays a subsidiary (if any) role in their identification. As for the meaning of these tags, we must assume that the choice of the rising - falling tone indicates that they are asking for information only. Consider the following indicative examples:

(288) iparxi tetja periptosi / ^ ΔEN iparxi// ("There is such a possibility, isn't there?")

(289) δen pinas / PI ^ NAS// ("You are not hungry, are you?")

(290) irθe oʳetros / ^ ETSI// ("Peter came, is that so?")

6. 12. 2 NSMG WITH THE ENGLISH DATA

The Greek informants were tested on 2 question tags (negative - affirmative and affirmative - negative) from unit one, the English text, and 7 question tags (affirmative - negative, negative - affirmative, affirmative - affirmative) from unit two, the prescribed sentences.

In unit two the informants were given particular instructions so as to produce the types according to the experimenter's expectations. In this way it could be checked whether the Greek informants were able to modify their intonational devices so as to respond to the requirements of the given instuctions.

With regard to unit one, NSMG were expected to use the appropriate intonational devices relying on the context and the meaning of the particular question. Naturally, each informant interpreted the passage in his/her own way so intonational variation was expected in the production of these question tags. To give an example, the question "You've never worked in radio or television before, have you?" implies that S is either sure of H's answer and is asking for confirmation or S is in doubt and is asking for information[35]. Thus a falling or a rising tone were equally acceptable.

QUESTION TAGS IN E BY NSMG

AFFIRMATIVE - NEGATIVE
RISING - FALLING: 19/44: 43%
LOW - RISING: 10/44: 23%
FALL: 10/44: 23%
HIGH - RISING: 4/44: 9%
FALLING - RISING: 1/44: 2%
NEGATIVE - AFFIRMATIVE
RISING - FALLING: 75/217: 34%
LOW - RISING: 52/217: 24%
FALL: 45/217: 21%
HIGH - RISING: 35/217: 16%
FALLING - RISING: 10/217: 5%
AFFIRMATIVE - AFFIRMATIVE
RISING - FALLING: 46/128: 36%
HIGH - RISING: 35/128: 27%
LOW - RISING: 32/128: 25%
FALL: 13/128: 10%
FALLING - RISING: 2/128: 1%

TOTAL: 389

Table 61 (continued from page 305)

DISCUSSION

As the reader can see from table 61 above, the rising - falling tone made a very striking appearance in all types of question tags of my data. This tendency was observed in all Greek informants, although not in the same degree (see also unexpected sentences below):

(291) You're ready / ∧AREn't you // (19 NSMG)

(292) You are not afraid / ∧ARE you// (8 NSMG)

(293) You are tired / ∧ARE you// (13 NSMG)

It was also observed that some NSMG had no other tonal choice except the use of the rising - falling tone since they produced all English question tags with this particular tone. This tendency was also observed in some NSMG when producing the English polar and negative questions.

Thus the assumption that can be drawn is that - to a large extent - the English question tags of the data were intonationally treated just like polar questions. As a result, NSMG transfered their intonational habits from the Greek polar questions into the English tag questions producing these types with a rising - falling tone. Thus a big number of NSMG was completely unaware of the idiosyncratic function of the English question tags whereby intonation is the only cue to decide as to whether S is asking for information or confirmation.

The other tones which appeared only partly fulfilled the experimenter's expectations; first, in the text the rising and the falling tones were equally acceptable since different interpretations (certainty or uncertainty) were allowed. But in the prescribed sentences NSMG used the rising and the falling tones almost indiscriminately without following the directions given by the experimenter. This shows that these NSMG had probably realized that the rising - falling tone is unacceptable in the English question tags. Nevertheless they generally failed to give the expected answer because they were insensitive to the meaning that these question tags had when produced with rising and falling tones:

(294a) You didn't tell me you would go out / ´DID you// (produced by 7 NSMG)

(294b) You didn't tell me you would go out / `DID you// (produced by 8 NSMG)

DIRECTION: "You are sure you will get a negative answer and you are asking for confirmation".

(295a) You are ready / ´AREn't you// (produced by 15 NSMG)

(295b) You are ready / `AREn't you// (produced by 10 NSMG)

DIRECTION: "You are not sure of the answer and you are asking for information".

UNEXPECTED ANSWERS[36] IN ENGLISH TAGS BY NSMG

D - PRELOWER GROUP	66/108	61%
LOWER - POST LOWER GROUP	26/146	18%
UNIVERSITY STUDENTS	46/135	34%

Table 62

As the above numbers show, the biggest number of unexpected sentences came from the group which was less exposed to E. In particular, 4 informants from this group used only the (Greek - like) rising - falling tone in all English question tags. University students also gave a big number of unexpected answers but they also made an effort to produce more acceptable patterns (more rises or falls). The lower - post lower group gave the best performance; 9 informants from this group produced no rising - falling tone whereas the rest of them used a variety of tones (including some rise - falls too). This group also tried to associate the type of question tags with the right meaning and give the tags the expected nuclear tone. Lastly, it was observed that whenever a particular NSMG had used rise - falls for the production of yes/no questions he/she also used rise - falls for the production of question tags. In both cases the number of unexpected tones varied from one group to the other.

Lastly, the chi - squared obtained exceeds the normal value at the chosen level of significance. Therefore, there is evidence for a divergence between the theoretical (table 63) and observed (table 62)

distributions ($p < 0.001$).

6. 12. 3 NES

The English informants were tested on 2 question tags from unit one, the English text, 7 question tags from unit two, the prescribed sentences, and a variable number of questions of this type from unit three, the spontaneous conversation (very limited data).

QUESTION TAGS BY NES

AFFIRMATIVE - NEGATIVE
LOW - RISE: 11/12: 92%
FALL - RISE: 1/12: 8%
NEGATIVE - AFFIRMATIVE
FALL: 29/60: 48%
LOW - RISE: 21/60: 35%
HIGH - RISE: 6/60: 10%
FALL - RISE: 4/60: 7%
AFFIRMATIVE - AFFIRMATIVE
LOW - RISE: 22/36: 61%
HIGH - RISE: 11/36: 30.5%

FALL - RISE: 2/36: 5.5%
FALL: 1/36: 3%
TOTAL: 108

Table 63

DISCUSSION

Generally speaking, NES agreed among themselves to a large extent on the intonational choices of the English tags.

NES chose a fall for the first tag which appeared in the text and a rise for the second tag. This choice was rather surprising because both of these question tags were of the same type (negative - affirmative) and NES - just like the Greek informants - were not given directions as to how to produce them. Therefore, it seems to me that in the first question the general feeling of NES was that S was asking for confirmation while in the second sentence S was asking for information:

(296) You have never worked in radio or television

before / \HAVE you// (3rd, 4th, 5th, 6th, 7th, 8th, 9th, 10th and 12th)

(297) You are not afraid / ,ARE you// (1st, 3rd, 4th, 5th, 6th, 9th, 10th, 11th, 12th NES)

With regard to the prescribed sentences, almost all English informants responded positively to the given directions of the experimenter. This remarkable consensus demonstrates virtually universal agreement as to the meaning of tones in tags. Apart from the straightforwardness of the given directions the intonation classes that most of my English informants had taken must also have greatly contributed to the production of the English tags according to the experimenter's expectations:

(298) You are ready, aren't you? DIRECTION: "You are not sure of the answer and you are asking for information".
RESULTS: RISES: 12/12

(299) You are not hungry, are you? DIRECTION: same as in 298 RESULTS: RISES: 11/12, FALL: 1/12

(300) John is here, is he?[37] NO DIRECTION GIVEN
RESULTS: RISES: 11/12, FALLS: 1/12

(301) You didn't tell me you would go out, did you? DIRECTION: You are sure of the answer and you are asking for confirmation. RESULTS: RISES: 2/12, FALLS: 10/12

(302) Be yourself, will you? NO DIRECTION GIVEN (see also note 37) RESULTS: RISES: 12/12

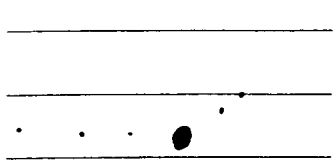
(303) You are tired, are you? NO DIRECTION GIVEN RESULTS: 12/12

(304) You haven't met her before, have you? DIRECTION: same as in 301 RESULTS: FALLS: 9/12, RISES: 3/12

The term "rise" in the above examples covers high, low as well as fall - rises. Nevertheless, the use of the fall - rise was very restricted (7/109 of the sentences). This agrees with traditional literature (Kingdon, 1958, Schubiger, 1958, Halliday, 1967, O'Connor and Arnold, 1973) which extensively discusses the use of falls and rises in question tags but does not account for the use of fall - rise in this area. Also, all the falls used were high - falls. As for the rises, the proportions were as follows: low - rise: 53/109 and high - rise: 19/109 both numbers indicating S's uncertainty. As the directions were rather general, these data cannot shed light as to whether

the degree of certainty is related to the use of different types of rises[38].

Lastly, although in transcribing these data no special attention was given to the presence/absence of the pauses which separated the statement from the tag, I should mention the tendency of some NES to produce a number of such types in a very fast tempo. In such cases there appeared no IG boundary between the statement and the tag and only one nucleus on the statement. According to the present data, such patterns were realized solely with a low - rise. The tag was included in the tail ending at a high pitch[39]:

(305) 

You're not a ,FRAID, are you? (2nd NES)

a. Both E and MG exhibit various types of question tags. For example: question tags in the affirmative - negative, negative - affirmative and affirmative - affirmative form.

b. The two languages use different lexico - grammatical as well as intonational devices for the production of question tags. With regard to lexico - grammatical devices, in E the verb of the statement which precedes the tag is repeated in the tag in an elliptical form (through an auxiliary). In MG the verb of the statement is repeated in the tag without ellipsis.

c. With regard to intonational devices, in E an important distinction is made between question tags where S seeks information from I and question tags where S seeks confirmation. This distinction is realized only through intonation (tone). On the other hand, in MG question tags resemble yes/no or negative questions in that they usually require a full answer from I. Therefore, in this particular area intonation plays a primary role in E but a rather subsidiary role in MG.

d. As shown from these data, NES have the tendency to produce reverse polarity tags with a rising tone, when they are unaware of I's answer and with a falling tone when S expects agreement on his/her previous statement. On the other hand, reverse polariy tags have the tendency to be produced with a rising tone only.

e. The present work also revealed that reverse polarity tags can also be produced with a fall - rise.

f. NSMG were faced with serious problems in producing English tag questions as most of them appeared totally insensitive to the meaning implications that these types conveyed through different intonational means. As a result, a big number of the English question tags were treated like the Greek yes/no or negative questions. The process of negative transfer operated in all groups of NSMG, Nevertheless, the lower - post lower group appeared to be less susceptible to negative transfer.

6. 13 SOME SPECIAL CASES WHERE E AND MG EXHIBIT CONSIDERABLE SIMILARITIES

INTRODUCTION

The present chapter is dealing with a limited number of cases where E and MG present significant similarities in the intonational treatment of otherwise (lexico - syntactically) identical sentence pairs. Although at first tonality seems to be the only intonational cue to disambiguate between most of such sentence pairs, other intonational means (that is, tonicity as well as tone) proved to be extremely helpful to the Greek and English informants with regard to disambiguation.

The sentence pairs come from unit two, the prescribed sentences, and were deliberately chosen by the experimenter as no such pairs appeared in unit one, the texts, and unit three, the spontaneous conversation.

More analytically now, NSMG were given 6 pairs of sentences in MG and 6 pairs of sentences in E (NES were given only the English pairs). As mentioned above, the general characteristic of these sentence pairs was that they had similar syntactic arrangement

in both languages while, lexically, some of them were translated from MG into E.

The main aim of the experimenter was to check whether (lexically and syntactically) identical sentence pairs could be distinguished solely through intonational means in both MG and E. Although the present chapter is a straightforward proof of structural similarities between the two languages, an attempt was made to discover any potential intonational differences in the way these otherwise similar sentence pairs are intonationally realized.

6. 13. 1 NSMG WITH THE GREEK DATA

NSMG were given the following sentence pairs:

1a. A co - ordinate sentence and 1b. a co - ordinate sentence with ellipsis of the object.

Both sentences were written in an absolutely identical way. The only difference between them was that in 1a a comma was inserted between the verb "έγραψε" (eγrapse) and the conjunction "και" (kje). The experimenter's expectation was that 1a should be produced with two pauses, one after the verb "eγrapse" (preferably a brief pause) and another one coming at

the end of the IG. On the other hand, 1b was expected to be read with no internal pause.

1a. eɣrapse, kje pareδose to ɣrama ("She/he wrote, and submitted the letter")
EXPECTED ANSWERS: 40/44: 91%
UNEXPECTED ANSWERS: 2/44: 4.5%
DUBIOUS ANSWERS: 2/44: 4.5%
1b. eɣrapse kje pareδose to ɣrama ("She wrote and submitted the letter")
EXPECTED ANSWERS: 39/44: 88%
UNEXPECTED ANSWERS: 4/44: 10%
DUBIOUS ANSWERS: 1/44: 2%

Table 64

DISCUSSION

As table 64 shows, the majority of NSMG produced sentence 1 in the expected way. In 1a the unexpected sentences were those where there was no pause after eɣrapse and thus 1a was produced in an identical

way to 1b. Dubious cases of 1a were of the following type:

(305) eγrapse / kje PA'REΔOSE to γrama// (17th, 29th, 39th NSMG)

In 1b the unexpected sentences were produced with an internal pause while the dubious case was similar to 305 but without an internal pause.

The second pair of sentences consisted of:

2a. a final vocative and 2b. an apposition.

The identical sentences differed only in terms of a comma placed between the genitive pronoun "μου" (mu) and petro in 2a. The basic distinction between the two sentences was expected to be realized through tonicity: 2a was expected to be produced with the nucleus on aδerfo while 2b was expected to be produced with the nucleus on petro. The use of a falling or a falling - rising tone was equally acceptable and the use of a (brief) pause between mu and petro in 2a was considered optional.

2a. na su sistiso ton aδerfo mu, petro ("Let me introduce to you my brother, Peter")
EXPECTED ANSWERS: 26/44: 59%
UNEXPECTED ANSWERS: 18/44: 40.5%
2b. na su sistiso ton aδerfo mu petro ("Let me introduce to you my brother Peter")
EXPECTED ANSWERS: 36/44: 82%
UNEXPECTED ANSWERS: 8/44: 18%

Table 65

DISCUSSION

As the results show, the Greek informants were faced with some problems, especially in producing 2a. As unexpected answers in 2a I considered the following:

(306) na su sistiso ton aδerfo mu ˋPETRO// (31st, 34th, 35th NSMG)

(307) na su sistiso ton AΔERˋFO mu / ˋPETRO// (5th, 9th, 10th, 12th, 13th, 20eth, 21st, 22nd, 25th, 26th,

32nd, 33rd, 39th, 41st, 43rd NSMG)

2b was less problematic as the majority of NSMG gave the expected answer. The unexpected version had the following form:

(308) na su sistiso ton AΔER'FO mu ,PETRO// (5th, 8th, 10th, 14th, 18th, 31st, 32nd and 41st NSMG)

The third pair consisted of the following sentences:

3a. Relative non restrictive and 3b. Relative restrictive sentence.

The written difference between the above pair of sentences was in the absence/presence of comma in the first and second sentence respectively. The expectation was that 3a would be produced without internal pauses whereas 3b would be produced with a pause before and after the relative clause.

3a. i γjatri pu kserun ti δulja tus θerapevun tus as asθenis ("The doctors who know their job treat the patients")
EXPECTED/ACCEPTABLE ANSWERS: 42/44: 95.5%
UNEXPECTED ANSWERS: 2/44: 4.5%
3b. i γjatri, pu kserun ti δulja tus, θerapevun tus asθenis ("The doctors, who know their job, treat the patients")
EXPECTED ANSWERS: 43/44: 98%
UNEXPECTED ANSWERS: 1/44: 2%

Table 66

DISCUSSION

Table 66 shows that sentence pair 3 was easy for NSMG to understand and produce. In sentence 3a several acceptable versions appeared such as:

(309) i γjatri pu kserun ti δulja tus θerapevun tus ASθE`NIS//

(310) i γjatri pu kserun ti ΔU,LJA tus / θerapevun tus

ASθE`NIS//

Consider now the following unexpected versions:

(311) i γjatri / pu kserun ti δulja tus θERA`PEVUN tus asθenis// (8th, 35th NSMG)

In 3b just 1 unexpected version appeared:

(312) i γjatri / pu `KSERUN ti δulja tus θerapevun tus asθenis// (4th NSMG)

Sentence pair 4 consisted of the following sentences:

4a. negative clause followed by a causative secondary clause; the scope of negation extends to the end of the clause which contains the negator. 4b. negative clause followed by a causative secondary clause; the scope of negation is transfered to the "για" (γja) clause, which is negated, and the verb of the first clause has a positive meaning.

The expected way to produce 4a was to use either one or two IG's and two or one nucleus (rising and falling tone respectively). As for 4b, the expected way was to use only one pause and one IG and a falling - rising tone on the negative particle δen and on -ri.

4a. δen tis milisa, γja na min ti stenoxoriso ("I didn't talk to her, because I didn't want to upset her")
EXPECTED ANSWERS: 43/44: 98%
UNEXPECTED ANSWERS: 1/44: 2%
4b. δen tis milisa γja na min ti stenoxoriso... (ala γja kapjon alo loγo) ("I didn't talk to her because I didn't want to make her upset"...)
EXPECTED ANSWERS: 30/44: 68%
UNEXPECTED ANSWERS: 5/44: 11%
DUBIOUS CASES: 9/44: 20.5%

Table 67

DISCUSSION

The results showed that with regard to 4a, most informants gave the expected answer. The sentence which was considered dubious was produced with a falling tone on milisa and this made the whole meaning sound awkward:

(313) δen tis `MILISA / γja na min ti STENOXO`RISO//
(14th NSMG)

In 4b the written directions (ala γja alon loγo: "but for some other reason"), helped most NSMG to give the expected answer. Consider the following unexpected answers:

(314) δen tis milisa γja na min ti STENOXO`RISO//
(8th, 10th, 11th, 14th NSMG)

(315) `ΔEN tis ,MILISA / γja na min ti STENOXO`RISO//
(36th NSMG)

Now consider some of the dubious cases of 4b:

(316) `ΔEN tis ,MILISA / γja na `MIN ti STENOXO,RISO//
(1st, 3rd NSMG)

(317) `ΔEN tis milisa γja na min ti stenoxoriso//
(21st, 23rd NSMG)

(318) `ΔEN tis milisa γja na min ti STENAXO>RISO//
(26th NSMG)

Sentence pair 5 consisted of two identical sentences whereby the only difference between them was realised through intonation in spoken MG. In written speech no difference exists. The explanatory indications were included in parentheses next to each sentence.

The expectation of the experimenter was that 5a should be produced with the nucleus on the last lexical item while 5b with the nucleus on fadazomun.

5a. fadazomun pos θa vreksi (kje evrekse) ("I imagined it would rain and it did")
EXPECTED ANSWERS: 40/44: 91%
UNEXPECTED ANSWERS: 4/44: 9%
5b. fadazomun pos θa vreksi (ala ekana laθos) ("I imagined it would rain but I was wrong")
EXPECTED ANSWERS: 38/44: 86%
UNEXPECTED ANSWERS: 6/44: 13%

Table 68

DISCUSSION

It becomes obvious from the above results that NSMG clearly use tonicity to distinguish between otherwise identical sentence pairs of the above type. Without asking any further verbal explanations most NSMG managed to perceive the difference in meaning held between the two sentences. The unexpected sentences which occurred were produced with wrong tonicity (5a had the nucleus on vreksi while 5b had the nucleus on fadazomun.

The last two sentences given to NSMG did not come in pairs; they belonged to the category of "event sentences" which Cruttenden (1986) claims in E do not take the nucleus on the last lexical item because the preceding lexical item attracts more attention. As nothing has been written on the Greek "event sentences" these data test whether the same tendency applies to MG as well. Thus no expected answer was sought in these Greek sentences because the experimenter did not want to base her judgments just on her personal intonational intuition.

6. to tilefono xtipa ("The phone's ringing")
NUCLEUS ON TILEFONO: 11/44: 25%
NUCLEUS ON XTIPA: 33/44: 75%
7. piγa sto lonδino tin triti ("I went to London on Tuesday")
NUCLEUS ON LONΔINO: 27/44: 61%
NUCLEUS ON TRITI: 17/44: 39%

Table 69

DISCUSSION

The above token is indeed so limited that I will avoid generalizations. The results simply show that NSMG were not consistent in deaccenting the last lexical item of these event sentences. This inconsistency may imply that some event sentences (as, for instance, "comings and goings") tend to be produced with the nucleus before the last lexical item, while other event sentences do not trigger similar deaccentuation in MG. It would be interesting to find out what was the intonational tendency of NSMG in the spontaneous

conversation but unfortunately no event sentences were found in this area.

6. 13. 2 NSMG WITH THE ENGLISH DATA

NSMG and NES were given the following sentence pairs:

1a. A co - ordinate sentence with ellipsis of the object and 1b. a co - ordinate sentence.

Both sentences were written in an absolutely identical way, except that in 1b a comma appeared between the verb "dressed" and the conjunction "and". The expectation was that in 1a no internal pause would be used while in 1b a pause should be used in the place of the comma:

1a. She dressed and changed the baby
EXPECTED ANSWERS: 39/44: 89%
UNEXPECTED ANSWERS: 5/44: 11%
She dressed, and changed the baby
EXPECTED ANSWERS: 42/44: 95.5%
DUBIOUS CASES: 2/44: 4.5%

Table 70

DISCUSSION

The above sentence pair was found to be easy for NSMG to produce. Consider the following unexpected answers with regard to 1a:

(319) She \DRESSED / and changed the \BABY// (14th, 15th, 23rd, 36th NSMG)

(320) She \DRESSED and changed the baby// (37th NSMG)

Notice that the 14th, 15th and 36th NSMG had also failed to produce the equivalent Greek sentence pair in the expected way. In sentence 1b only 2 dubious answers occurred:

(321) She /DRESSED and \CHANGED the baby// (11th NSMG)

(322) She ,DRESSED \AND changed the baby// (44th NSMG)

The second pair was slightly lexically different to the Greek example 2a, b, nevertheless, the two pairs exhibited general lexico - syntactic similarities. In particular, 2 consisted of:

2a. a final vocative and 2b. an apposition.

It was accepted that this pair had various intonational realisations so the experimenter was flexible as to the answers that were going to be regarded as expected. Tonality was not considered so crucial in this particular case since the presence/absence of an internal pause alone (in 2a) could not anticipate an expected answer.

2a. Let me introduce you to my brother, Peter
EXPECTED ANSWERS: 25/44: 57%
UNEXPECTED ANSWERS: 19/44: 43%
2b. Let me introduce you to my brother Peter
EXPECTED ANSWERS: 36/44: 81%
UNEXPECTED ANSWERS: 7/44: 16%
DUBIOUS CASES: 1/44: 2%

Table 71

DISCUSSION

The above results show that some NSMG were faced with problems in producing the above sentence pair. Most problems appeared in the first sentence where 19

subjects failed to produce it in the expected way. As shown from the examples below, the presence of the comma somehow impinged the production of 2a in the expected way:

(323) Let me introduce you to my ˅BROTHER / ˋPETER// (5th NSMG)

(324) Let introduce you to my ˋBROTHER / ˋPETER// (10th, 12th, 13th, 14th, 18th, 20eth, 21st, 22nd, 24th, 26th, 32nd, 34th, 37th, 41st NSMG)

(325) Let me introduce you to my brother ˋPETER// (8th, 27th, 33rd NSMG)

(326) Let me introduce you to my brother ^ PETER (43rd NSMG)

As far as 2b is concerned, NSMG faced less problems; the unexpected answers that occurred here show that this sentence was thought to carry the meaning of 2a:

(327) Let me introduce you to my ˋBROTHER Peter// (2nd, 3rd, 39th, 40 th NSMG)

(328) ˋLET me introduce you to my brother ˏPETER// (24th)

(329) Let me INTRO`DUCE you to my brother ,PETER//
(27th NSMG)

(330) Let me introduce you to my `BROTHER ,PETER//
(32nd NSMG)

Consider now the following dubious answer:

(331) 'Let me introduce you to my °brother ,PETER//
(10th NSMG)

It should also be pointed out that the 12th, 13th, 20 th, 21st, 22nd, 25th, 26th, 32nd, 33rd, 34th, 41st and 43rd NSMG gave the same (expected/unexpected) answers in the Greek as well as the English second sentence pair.

Lastly, I would also like to mention a few things about the way 2a was produced: many intonational alternatives appeared and as can be seen from the examples that follow tonicity was more crucial for giving the sentence an acceptable interpretation.

(332) Let me introduce you to my `BROTHER Peter//
(2nd, 9th, 17th, 27th and 29th NSMG)

(333) Let me introduce you to my \BROTHER / ,PETER//
(4th, 39th and 40 th NSMG)

(334) Let me introduce you to my \BROTHER ,PETER//
(3rd, 7th, 15th, 28th, 35th, 36th, 37th and 42nd NSMG)

Now with regard to sentence pair 3, the informants were given:

3a. a relative restrictive and a relative non restrictive sentence.

The meaning contrast of 3a and 3b was expected to be achieved through tonality and tone. In particular, in 3a the relative clause was written between commas and it was expected that two internal pauses should be used to separate the relative clause from the rest of the sentence. Also, the expectation was that a non falling tone would be used on the lexical items "children" and "attentive". As for 3b, no punctuation mark was given and normally no pause was expected (although it was possible that a pause appeared after the word "attentive").

The children, who were very attentive, did well in their exams
EXPECTED ANSWERS: 42/44: 95.5%
UNEXPECTED ANSWERS: 2/44: 4.5%
The children who were very attentive did well in their exams
EXPECTED ANSWERS: 34/44: 77%
UNEXPECTED ANSWERS: 10/44: 23%

Table 72

DISCUSSION

Table 72 shows that in 3a NSMG did not face any particular problems. Nevertheless, although the distribution of pauses was realised successfully in that it resembled the way NES had paused, the choice of the nuclear tone was somehow non - English. The following example was given by 25 NSMG but not even 1 NES made a similar choice (see following pages on NES's production):

(335) The ˅CHILDREN / who were ˋVERY AT,TENTIVE / did well in their EXAMS//

The following alternative, chosen by 16 NSMG, should be attributed to interference since the use of the low - rising tone as a referring tone is very striking in MG.

(336) The ,CHILDREN / who were very AT,TENTIVE / did well in their EXAMS//

The following two cases as well as being unexpected were also considered accidental. The first sentence was considered totally unacceptable mainly because of the tone choice of the main clause and the second was considered unacceptable too on the basis of its awkward tonicity:

(337) The ˋCHILDREN / who were ˋVERY attentive / ^DID well in their exams// (43rd NSMG)

(338) The ˋCHILDREN / who were ˋVERY attentive / ˋDID well in their exams// (30 th NSMG)

What is interesting in 3b is that although no punctuation was indicated 27 NSMG used a brief/very slight pause to separate the relative clause from the

rest of the sentence. Also, some NSMG had used nucleus placement within the restrictive clause as a means to intensify the restrictive meaning of 3b:

(339) The children who were very AT`TENTIVE did well in their exams// (17th, 19th, 28th NSMG)

Consider the most striking unexpected answers:

(340) The ,CHILDREN / who were `VERY AT,TENTIVE (/) did well in their E XAMS// (8th, 15th, 36th NSMG)

(341) The `CHILDREN / who were `VERY AT,TENTIVE / did well in their E XAMS// (2nd, 3rd, 28th, 35th, 39th NSMG)

(342) The `CHILDREN / who were `VERY AT,TENTIVE / did well in their E XAMS// (23rd NSMG)

Now sentence pair 4 consisted of:

4a. a negative statement immediately followed by a secondary causative clause and 4b. a negative statement also immediately followed by a secondary causative clause. In the latter sentence the scope of negation is transfered to the "because" clause, which is negated and the verb of the first clause has a

positive meaning.

In 4a the negative clause was separated from the rest of the sentence by a comma which was placed after the word "doctor" in written speech. The expectation was that informants should rather use an internal pause separating the two clauses (though sentences without such a pause were also considered acceptable). Most of all, it was expected that a falling tone should be used on the word "ill". In 4b no comma was indicated; the experimenter expected that informants should produce this sentence with no internal pause and a falling - rising tone on "ill". The use of a non - falling tone on "ill" is essential because if a fall is used the sentence acquires the meaning of sentence 4a.

4a. I didn't go to the doctor, because I was ill
EXPECTED ANSWERS: 42/44: 95.5%
UNEXPECTED ANSWERS: 2/44: 4.5%
4b. I didn't go to the doctor because I was ill...
EXPECTED/ACCEPTABLE ANSWERS: 31/44: 70.5%
UNEXPECTED ANSWERS: 9/44: 20.5%
DUBIOUS CASES: 4/44: 9%

Table 73

DISCUSSION

As the results show, 4a gave fewer unexpected answers than 4b. The prevailing pattern in 4a was the following:

(343) I ˋDIDn't go to the ˏDOCTOR / because I was ˋILL//

Only 2 unexpected answers occurred:

(344) I `DIDn't go to the ,DOCTOR / BE`CAUSE I was ,ILL (31st NSMG)

(345) I `DID't go to the doctor / BE`CAUSE I was ill// (30th NSMG)

In 4b the overwhelming majority of NSMG gave a pattern which cannot be regarded unacceptable. Nevertheless it does not really resemble the choice of NES. This is so because in the Greek performance the verb "didn't" was nuclear whereas NES preferred to put the nucleus on the word "ill":

(346) I `DIDn't go to the doctor because I was ,ILL //

Consider now the most typical unexpected cases:

(347) I didn't go to the `DOCTOR/ because I was `ILL// (9th NSMG)

(348) I didn't go to the doctor because I was `ILL (10th, 34th NSMG)

(349) I `DIDn't go to the ,DOCTOR / because I was `ILL// (2nd, 3rd, 30 th, 43rd NSMG)

Notice that subjects 8, 10, 11, 34, 36 and 43 had produced 4b in an unexpected way in the Greek data too.

The following cases were considered dubious:

(350) I `DIDn't go to the doctor because I was ill// (1st, 6th, 19th NSMG)

(351) I didn't go to the doctor BE`CAUSE I was ill// (31st NSMG)

Sentence pair 5 consisted of two identical sentences in written speech which were supposed to differ only in terms of nucleus placement. As with MG, the meaning of the two sentences was given in parentheses which were placed next to each sentence.

The experimenter expected that 5a would be produced with the nucleus on "thought" whereas 5b was expected to be produced with the nucleus on "married". As for the nuclear tone, the informants were expected to use either a fall on the word "thought" or a fall plus rise on the word "thought" and the word "married" in 5a while in 5b a fall or a fall - rise was expected to be placed on "married" (see also Cruttenden, 1986:108-111).

5a. I thought she was married (and indeed she was)
EXPECTED ANSWERS: 34/44: 77%
UNEXPECTED SENTENCES: 10/44: 22%
5b. I thought she was married (but I was wrong, she wasn't)
EXPECTED ANSWERS: 30/44: 68%
UNEXPECTED ANSWERS: 14/44: 32%

Table 74

DISCUSSION

As the above table shows, NSMG gave more unexpected answers when producing this sentence pair than sentence pair 5 of the Greek data. This might be attributed to confusion and failure to pay attention to the given directions. Those NSMG who produced both sentences in the expected way have probably been positively influenced by MG since, as shown earlier, the same meaning contrast is exhibited in MG too. It was also observed that the falling tone was by far the commonest tone appearing in both sentences. A very

limited number of NSMG also used a falling - rising tone with the nucleus clearly on "thought" in 5a. This choice is contrary to the English tendency described by Cruttenden (1986:110-111).

Next we move to event sentences which were a translation from the Greek sentences 6 and 7. With regard to intonational expectations and according to Cruttenden (1986) as well as the results obtained from the control group, 5 and 6 were expected to be produced with the nucleus on the words "phone" and "London".

6. The phone's ringing
EXPECTED ANSWERS: 10/44: 22%
UNEXPECTED ANSWERS: 34/44: 77%
7. I'm going to London on Tuesday
EXPECTED ANSWERS: 12/44: 27%
UNEXPECTED ANSWERS: 31/44: 70%
DUBIOUS ANSWERS: 1/44: 2%

Table 75

DISCUSSION

The results show that NSMG have no tendency to deaccent the last lexical item in event sentences. This observation may also be a proof that in MG this type of sentence do not take deaccentuation of the last lexical item and the Greek informants could not be positively influenced from MG. The following case was considered dubious because two nuclei were found:

(352) I am going to \LONDON on \TUESDAY// (8th, 33rd NSMG)

UNEXPECTED SENTENCES; NSMG WITH E

SENTENCE PAIR 1[40]
D - PRELOWER GROUP: 2/12: 17%
LOWER - POST LOWER GROUP: 3/17: 18%
UNIVERSITY STUDENTS: 0/15: 13%
SENTENCE PAIR 2
D - PRELOWER GROUP: 6/12: 33%
LOWER - POST LOWER GROUP: 10/17: 41%
UNIVERSITY STUDENTS: 10/15: 67%

SENTENCE PAIR 3
D - PRELOWER GROUP: 5/12: 33%
LOWER - POST LOWER GROUP: 4/17: 23.5%
UNIVERSITY STUDENTS: 3/15: 27%
SENTENCE PAIR 4
D - PRELOWER GROUP: 3/12: 25%
LOWER - POST LOWER GROUP: 5/17: 41%
UNIVERSITY STUDENTS: 3/15: 20%
SENTENCE PAIR 5
D - PRELOWER GROUP: 10/12: 50%
LOWER - POST LOWER: 7/17: 18%
UNIVERSITY STUDENTS: 7/15: 23.5%
SENTENCE 6
D - PRELOWER GROUP: 12/12: 100%
LOWER - POST LOWER GROUP: 10/17: 70.5%
UNIVERSITY STUDENTS: 12/15: 67%
SENTENCE 7
D - PRELOWER GROUP: 10/12: 67%
LOWER - POST LOWER: 13/17: 59%

UNIVERSITY STUDENTS: 8/15: 53%
TOTAL NUMBERS
D - PRELOWER GROUP: 48/144: 33%
LOWER - POST LOWER GROUP: 52/204: 25%
UNIVERSITY STUDENTS: 43/180: 23%

Table 76

DISCUSSION

As the results show, in this area university students did better than the lower - post lower group while the D - prelower group gave the biggest number of unexpected answers.

6. 13. 3 NES

The control group was given exactly the same sentences and sentence pairs as the Greek informants when dealing with the English data. The results are as follows:

1a. She dressed and changed the baby
EXPECTED ANSWERS: 12/12: 100%
1b. She dressed, and changed the baby
EXPECTED/ACCEPTABLE ANSWERS: 12/12: 100%

Table 77

DISCUSSION

Table 77 shows that NES faced absolutely no problems to interpret and produce sentence pair 1. In 1b there was some variation in the choice of tone of the first clause but the important thing is that punctuation helped subjects to give the expected (or an acceptable) answer:

(353) She ˅DRESSED / and changed the ˋBABY// (1st, 3rd, 4th, 5th, 6th, 7th, 8th, 9th, 10th, 12th NES)

(354) She ˊDRESSED / and changed the ˋBABY// (7th, 11th NES)

(355) She ˌDRESSED / and changed the ˋBABY// (2nd NES)

2a. Let me introduce you to my brother, Peter
EXPECTED ANSWERS: 5/12: 42%
UNEXPECTED ANSWERS: 7/12: 58%
2b. Let me introduce you to my brother Peter
EXPECTED/ACCEPTABLE ANSWERS: 8/12: 67%
UNEXPECTED ANSWERS: 4/12: 33%

Table 78

DISCUSSION

As the above table reveals, NES faced some problems in producing sentence pair 2. More unexpected answers were obtained from 2a where all the unexpected choices gave sentences identical in meaning to 2b. Therefore, contrary to 1a, the apearance of the comma in 2a must have been a misleading guide for NES as it triggered a number of unexpected pauses:

(356) Let me introduce you to my \BROTHER / \PETER//
(1st, 2nd, 9th, 10th, 11th, 12th NES)

(357) Let me introduce you to my >BROTHER / \PETER//
(3rd NES)

Sentence 2b caused less problems to NES and various acceptable tonal choices were given, such as:

(358) Let me introduce you to my brother ˋPETER//
(4th, 5th, 6th, 8th, 9th, 12th NES)

(359) Let me introduce you to my ˋBROTHER / ˋPETER//

In the following unexpected versions 2b was produced with the meaning of 2a:

(360) Let me introduce you to my ˋBROTHER ˏPETER//
(1st, 2nd, NES)

(361) Let me introduce you to my ˋBROTHER Peter//
(3rd, 11th NES)

3a. The children, who were very attentive, did well in their exams
EXPECTED ANSWERS: 12/12: 100%
3b. The children who were very attentive did well in their exams
EXPECTED ANSWERS: 12/12: 100%

Table 79

As the above table shows, sentence pair 3 created no problems to NES. In 3a the words "children" and "attentive" were mostly produced with a fall - rise, nevertheless, the use of the falling tone was not excluded:

(362) The ᵛCHILDREN / who were very ATᵛTENTIVE / did well in their E\XAMS// (1st, 5th, 6th, 8th, 9th, 10th NES)

(363) The ᵛCHILDREN / who were very AT\TENTIVE / did well in their E\XAMS// (2nd, 4th, 7th, 12th NES)

In 3b a variety of acceptable (though not always expected) answers appeared. Some NES had relied more on tonicity and the meaning of restriction was given by placing the nucleus on "attentive". Notice also that although no pause was used after the "children", the appearance of a brief pause after "attentive" was frequent. This is another indication that spelling does not always trigger pauses in E. Consider some versions of 3b:

(364) The children who were very AT \TENTIVE / did well in their exams// (4th, 5th, 6th, 7th NES)

(365) The children who were very AT\TENTIVE did well in their exams// (9th, 11th, 12th NES)

4a. I didn't go to the doctor, because I was ill
EXPECTED/ACCEPTABLE ANSWERS: 11/12: 92%
UNEXPECTED ANSWERS: 1/12: 8%
4b. I didn't go to the doctor beacause I was ill...
EXPECTED ANSWERS: 8/12: 67%
UNEXPECTED ANSWERS: 1/12: 8%
DUBIOUS CASES: 3/12: 25%

Table 80

DISCUSSION

Table 80 above shows that the majority of English informants managed to produce both sentences either in the expected or in an acceptable way. In particular, in 4a 8 sentences were produced in the expected way while 3 NES gave an acceptable answer:

(366) I didn't go to the ˅DOCTOR / because I was ˋILL// (1st, 2nd, 3rd, 4th, 7th, 8th, 9th, 10th)

(367) I didn't go to the ˎDOCTOR / because I was ˋILL (6th, 11th NES)

(368) I didn't ˋGO to the ˏDOCTOR / because I was ˋILL// (12th NES)

Only 1 unexpected answer of sentence 4a was obtained which had the meaning of 4b:

(369) I didn't go to the doctor because I was ˅ILL// (5th NES)

In 4b all the expected answers had the following form:

(370) I didn't go to the doctor because I was ˅ILL// (2nd, 6th, 7th, 8th, 9th, 10th, 11th, 12th NES)

As a non NES, I found difficulty in deciding whether the following cases should be considered acceptable or dubious. Finally they were regarded dubious because after asking 5 NES (not the control group) only 2 gave me the expected meaning:

(371) I didn't go to the doctor BE\CAUSE I was ill//
(3rd NES)

(372) I didn't go to the doctor BE\CAUSE I was ILL//
(4th NES)

5a. I thought she was married (and indeed she is)
EXPECTED ANSWERS: 10/12: 83%
UNEXPECTED ANSWERS: 2/12: 16%
5b. I thought she was married (but I was wrong, she isn't)
EXPECTED ANSWERS: 10/12: 83%
UNEXPECTED ANSWERS: 2/12: 16%

Table 81

DISCUSSION

The above results show that it was not difficult for the majority of NES to produce the above sentence pair in the expected way. In 5a the falling - rising tone (on "thought" and "married") was used by almost all

informants (contrast this choice with the choice of NSMG in the same sentence pair). On the other hand, 5b was produced only with a falling tone (on "married").

6. The phone's ringing
EXPECTED ANSWERS: 12/12: 100%
7. I'm going to London on Tuesday
EXPECTED ANSWERS: 5/12: 42%
UNEXPECTED ANSWERS: 7/12: 58%

Table 82

DISCUSSION

The results above do not offer much help as they show different intonational (tonicity) tendencies. While in 6 there appeared total agreement among NES in placing the nucleus on "phone", in 7 only 5 NES showed the same tendency. The rest of the informants either placed the nucleus on "Tuesday" or produced two nuclei, that is, on "Tuesday" as well as "London". The latter tendency was also observed in NSMG when dealing with the English data while in the relevant Greek data the opposite tendency was observed, that

is, sentence 6 was produced with the nucleus on the rightmost item by the majority of speakers but in 7 it was the word "Λονδίνο" (lonδino "London") which attracted the nucleus by most NSMG.

CONCLUSIONS

a. As shown from the data, this is another area where E and MG exhibit considerable similarities in distinguishing between (lexico - syntactically) identical sentences by means of intonation only. This observation underlines the importance of intonation in contemporary spoken E and MG.

b. It was also observed that often the two languages use similar intonational devices (in terms of tonality, tonicity and tone) in order to distinguish such identical sentence pairs. Occasionally, the two languages use different intonational means (consider, for instance, sentences 4b and 5a).

c. Generally speaking, native speakers of both languages are influenced by punctuation and indeed punctuation cues often helped the informants to interpret and produce the given sentence pairs in the expected way. Nevertheless, there also apppeared cases

where the presence of a comma triggered unexpected intonational choices (as in sentences 2b).

d. With regard to NSMG and the English data, one can observe that some sentence pairs were intonationally differentiated in the way the Greek sentence pairs had been distinguished (as, for instance, in 4b). This tendency (interference) made such sentences sound rather non - English, although they conveyed the appropriate meaning. On the other hand, the overall similarity that the two languages exhibit in the intonational treatment of these sentence pairs helped NSMG to produce most of them in the expected way.

e. The D - prelower group gave the poorest performance in terms of unexpected answers while university students gave the smallest number of unexpected answers.

19. According to traditional literature (Kingdon, 1958:212 and O'Connor and Arnold, 1973:54-55) as well as the evidence given by the control group, unexpected sentences were considered all those sentences which were produced with a falling - rising tone on the wh - word, a falling tone on the wh - word, any other tone on the wh - word, any sentences produced with a rise - fall and any other sentence where the nucleus had unexpectedly fallen before the last lexical item.

20. As examples 140-144 were considered difficult for analysis, a number of NSMG (not the informants) were asked to listen to these sentences and offer their comments on the particular area. In particular, 5 NSMG were asked to suggest possible contexts where these sentences might have occurred. All sentences were produced by me in two ways, that is, with the nucleus on the last lexical item and with the nucleus before the last lexical item.

21. According to M. Triantafillides (1982:146, 147), three types of past tense can be distinguished in MG: a. "Παρατατικός" (Paratatikos) indicating that what the verb means was happening in the past continuously or repeatedly, b. "Αόριστος" (aoristos) indicating

that what the verb means happened only once in the past, c."Υπερσυντέλικος" (ipersidelikos) indicating that what the verb means had already finished in the past before something else started.

22. According to traditional literature (Kingdon, 1958:210-214 and O'Connor and Arnold, 1973: 63-64) as well as information obtained from the control group, unexpected yes/no questions were considered those which had been produced with the nucleus before the last lexical item.

23. The terms "real", "brief" and "very slight pause" should be understood mainly in terms of timing in the present study. Accordingly, in real pauses all the informants had interrupted their speech for a considerable period of time (minimum 1 sec). Brief pauses were identified by less (yet some audible) cessation of speech (less than 1 sec). On the other hand, the term very slight pause was invented to account for changes of pitch movement which were not followed by an audible period of silence.

24. Real pauses have been excluded from the analysis of the sentences because this part of the experiment is not a text and so the appearance of real pauses is always implied.

25. Subjects were told not to produce the lexical cues in the parenthesis but just to take the parenthesis into consideration in order to produce the Greek and the equivalent English sentence in the expected way.

26. By "no tone" I mean cases where there appeared no IG boundary and no nuclear tone. Nevertheless, it should be stated that the lack of an IG boundary did not always exclude the appearance of a nuclear tone. In fact, 8 clauses/phrases were found where a tone was produced without an IG boundary.

27. These boxes consist of the most frequent (and not all) combination of tones which appeared in the speech of NSMG and NES. Combination of tones that appeared less than 5 times were ignored. It should also be stated that in closed listing the falling tone of the final item of the list was not included in the box as this was regarded redundant. The "0" which occasionally occurred stands for those cases where no tone was used.

28. Nevertheless, in one sentence of the English text the nuclear syllable was a preposition: "A few minutes later, his secretary took Linda in".

29. In a number of cases, the last item was deaccented but the nucleus shifted to a very early position. Such cases were considered unexpected, as in: i `ELINES epixjirimaties epjasan to minima// (the expectation was to place the nucleus on "epjasan" - 11th NSMG).

30. M. Fereira - Cruz (1983:190) also noticed the tendency of NES to associate the high - fall with a somehow marked overtone in perception tests (but see also chapter 7).

31. Although the limited data revealed only two cases where NES had proceeded to deaccentuation of the last lexical item in cases where no background information was presupposed, placing the nucleus on lexical items which express strong emotional feelings should also be considered a possibility in E, as Crystal (1975:26) states.

32. As traditional literature does not offer much help in this area, I had to trust the results obtained from the control group and contrast them with the results of NSMG. Accordingly, sentences produced with a rising - falling tone were considered unexpected because no rise - fall appeared in the negative questions produced by NES. Similarly, sentences with the nucleus before the last lexical item and particularly those

with the nucleus on the contracted negative form of the auxiliary were also considered unexpected because the majority of these sentences were produced with the nucleus on the last lexical item by NES.

33. Confirmatory/statement questions are discussed by Kingdon (1958:226-227). He calls such questions "implicatory statements" and he claims that when a falling - rising tone is used the implication is that S hopes the statement is true while when S uses a falling tone the implication is that S hopes the statement is not true. Nevertheless, my data revealed that both tones were used with the same implication, that is, S seeks confirmation to what he/she believes is true. Also, Alexander (1988:258-259) states that in E the distinction between statements and confirmatory questions is realized through tone, stressing that confirmatory questions take a rise.

34. For a tho rough presentation of the authors who have dealt with question tags in E the reader can refer to Ferreira - Cruz, 1983:246-261.

35. With regard to reverse polarity tags and the use of rising tones, two main attitudes have been expressed; the first one expressed by Lee (1956b:66-67) states that in tags where S expresses uncertainty

through the use of a rising tone information is sought. Similarly, Kingdon (1958) claims that the use of the high - rise tone is related to true questions. On the other hand, authors such as Schubiger (1958) and Halliday (1967, 1970) believe that with question tags of this type H's answer conveys neutral expectations but there still exists some possibility for agreement. Also M. Ferreira - Cruz (1983) states that all tags imply "biased" answers. These latter authors probably tend to give more importance to the statement which preceds the tag which expresses S's certainty of something he/she has just said. The thing is, however, that very often S gets an answer contrary to his/her belief and this means that the tag has the power to reverse the illocutionary force of the previous statement. The use of the rising - falling tone in such questions in MG proves the non biased nature of question tags (see also similar assumptions from the results of the English data produced by NES).

36. Unexpected sentences in this area were considered all those sentences produced with a rising - falling tone, sentences produced with a rising tone in cases where the direction was: "You are sure of the answer and you are asking for confirmation" and sentences produced with a falling tone when the direction given

was: "You are not sure of the answer and you are asking for information". As with the previous data, the performance of NSMG was judged according to the performance of NES and from information obtained from the traditional literature on question tags.

37. Constant polarity tags have been described as taking only one type of tone, namely a rising one. Therefore, the aim of the experimenter here was to find out whether there still exists the same tendency among NES.

38. Some authors have expressed the point of view according to which the strength of S's expectation, or the degree of confidence in his/her statement varies according to the direction of pitch of falling or rising tone. For instance, O'Connor (1955) mentions that the low - fall on the tag is a "confirmative pattern" whereas with the higher fall the effect is of a "disjunction" of elements. With regard to rising tones the same author states that the use of the low - rise is rather related to confirmation. Nevertheless, contradiction to S's previous statement is not totally impossible. The use of the high - rise, on the other hand, is also related to positiveness but the element of doubt is more striking. Also, Kingdon believes that the high - rise makes the tag genuine question.

39. M. Ferreira - Cruz (1983:260) also noticed this phenomenon and she described it in similar ways. She also claims that such a version "conveys a strong overtone of expected agreement". I am not sure, however, that this is always the case since in my data this pattern appeared in cases where information was sought. In fact, in the following example contradiction to S's statement was strongly implied: "You're not afraid, are you?".

40. As in all previous data, unexpected sentences were judged according to the performance of NES and to traditional literature which discusses similar cases (Halliday, 1967:34, O'Connor and Arnold, 1973:85), Hirst, 1977:43, Cruttenden, 1986:109-111). Also, expected (or acceptable) were considered only those pairs where <u>both</u> sentences were produced according to the experimenter's expectations, as it was essential that the meaning contrast was made obvious. This decision also helped in discarding accidental answers.

7. ANALYSIS OF RESULTS - PERCEPTION TESTS

INTRODUCTION

This is the second and last part of the experimental data which consists of a small number of sentences as well as sentence pairs. The perception test was not as long as the production test but this should not be taken to imply that the role of perception in the communicative process has been undervalued by the experimenter. The production test was already quite long and it was felt necessary to keep the perception test brief to avoid fatigue for subjects.

The aim of the perception test was to double check the intonational (and, in particular, tonal) tendencies of NSMG and NES observed in some areas of the production test. Also, this test was used as an extra source of evidence in cases where the production test did not shed sufficient light on a particular area that was under examination.

All informants were given a specific number of sentences (see also below) on a two page sheet of paper and they were asked to have a careful look at them for approximately 5 minutes. The sentences were not accompanied by punctuation marks because the

experimenter's intention was to make informants rely solely on intonation cues. On the top of the first page directions were given to them as to how to deal with this task: subjects listened to a tape on which the Greek sentences were produced by the experimenter while the English sentences were produced by a NES of RP (not from the control group). Each sentence was repeated 5 times with an interval of approximately 2 seconds. At the end of the repetitions of each sentence and before the next sentence was produced, an interval of 5 seconds was allowed for informants to write their responses. Next to each sentence a blank box was included and below each sentence various grammatical terms were also written ("negative statement", "question", etc) which were preceded by a letter of the alphabet (a, b, c, etc). The informants were asked to identify what type of sentences were the ones produced and (according to the given grammatical terms) place each time the appropriate letter in the relevant box. The order in which the terms were given, and thus the letters assigned to them, varied from one example to the other. The number of choices (apart from the expected one) varied too.

The experimenter wanted to avoid accidental answers coming from the multiple choice system of this test. Thus the informants were not forced to fill the boxes

if they thought that none of the given letters conveyed the appropriate meaning and they were asked to leave the box empty or add any other answer (grammatical term) they considered appropriate. This approach has the benefit of combining the totally controlled closed choice answering procedure[41] with the totally uncontrolled open choice one (non multiple choice). Even the empty boxes were considered important as they indicated a problem area and potential tonal differences between E and MG.

7. 1 NSMG WITH THE GREEK DATA

NSMG were given 13 sentences and 1 sentence pair. The specific areas where they were tested were: commands, requests, statements conveying no obvious emotional tension impressed statements, reservations, warnings and polar questions. The experimenter's expectations with regard to all sentences and the results obtained from the 44 NSMG are as follows[42]:

1. i ˌsixase ("be quiet")
EXPECTED ANSWER: "command" (a)
OTHER CHOICES: b. question c. request d. surprise
RESULTS; EXPECTED ANSWERS: 36/44: 82%
2. ˈklis to paraθiro ("close the window")
EXPECTED ANSWER: "command" (b)
OTHER CHOICES: a. question c. request d. statement e. surprise
RESULTS; EXPECTED ANSWERS: 28/44: 67%
3. mazepse ta ˈruxa tu ("he collected his clothes")
EXPECTED ANSWER: "statement with no obvious emotional tension" (c)
OTHER CHOICES: a. negative statement b. question d. surprise
RESULTS; EXPECTED ANSWERS: 29/44: 66%
4. ˀefiɣe ("he/she left")
EXPECTED ANSWER: "emotional tension/surprise" (a)

OTHER CHOICES: b. statement with no obvious emotional tension c. question d. command
RESULTS; EXPECTED ANSWERS: 36/44: 82%
5. iθele na pai sine ^ ma ("did he/she want to go to the cinema?")
EXPECTED ANSWER: "question" (d)
OTHER CHOICES: a. statement b. request c. negative statement e. surprise
RESULTS; EXPECTED ANSWERS: 36/44: 82%
6. itan \pede ("they were five")
EXPECTED ANSWER: "statement with no obvious emotional tension" (a)
OTHER CHOICES: b. impressed statement c. question d. warning e. command
RESULTS; EXPECTED ANSWERS: 35/44: 79.5%
7. ˇ toksere (ala...) ("he/she knew it but...")
EXPECTED ANSWER: "reservation" (c)
OTHER CHOICES: a. question b. warning d. impressed statement e. statement
RESULTS; EXPECTED ANSWERS: 29/44: 66%

8. θa ˋpesis ("you will fall")
EXPECTED ANSWER: "warning" (d)
OTHER CHOICES: a. negative statement b. reservation c. question
RESULTS; EXPECTED ANSWERS: 42/44: 95.5%
9. θa bleksis ˇasxjima ("you will be in trouble")
EXPECTED ANSWER: "warning" (a)
OTHER CHOICES: b. reservation c. statement d. question e. negative statement
RESULTS; EXPECTED ANSWERS: 11/44: 25%
10. oxji o ˋpanos ("not Panos")
EXPECTED ANSWER: "negative statement" (c)
OTHER ANSWERS: a. request b. command d. reservation
RESULTS; EXPECTED ANSWERS: 40/44: 91%
11. oxji o ˇpanos ("not Panos")
EXPECTED ANSWER: "warning" (a)
OTHER ANSWERS: b. reservation c. question d. statement
RESULTS; EXPECTED ANSWERS: 2/44: 4.5%

12. `mi rixnis nera sto xa,li ("don't throw water on the floor")
EXPECTED ANSWER: "request" (b)
OTHER CHOICES: a. surprise c. question d. command e. negative statement
RESULTS; EXPECTED ANSWERS: 34/44: 77%
13. sta`mata na kanis fasa,ria ("stop making noise")
EXPECTED ANSWER: "request" (e)
OTHER CHOICES: a. negative statement b. surprise c. command d. statement
RESULTS; EXPECTED ANSWERS: 30/44: 68%
14. ksoδepse ekato `lires ("he/she spent a hundred pounds")
EXPECTED ANSWER: "emotional tension/impressed statement" (b)
OTHER CHOICES: a. question c. statement with no obvious emotional tension d. request
RESULTS; EXPECTED ANSWERS: 39/44: 89%
15. mu tile ^fonise ("he/she called me")

EXPECTED ANSWER: "emotional tension/impressed statement" (e)
OTHER CHOICES: a. statement with no obvious emotional tension b. question c. warning d. request
RESULTS; EXPECTED ANSWERS: 9/44: 20.5%

Table 83

DISCUSSION

First, with regard to commands, NSMG were tested from 2 sentences. Sentence 1 was produced with a low - falling tone while sentence 2 was produced with a high - falling tone. As the results showed, the majority of NSMG managed to interpret both sentences according to the experimenter's expectations. Futhermore, the data revealed that more expected answers were obtained from sentence 1 while in sentence 2 more unexpected answers occurred; in particular, the rest of the subjects thought that sentence 1 was a request while in sentence 2 the rest of the subjects made the following choices: 5 subjects thought it was a request while it was particularly interesting that 11 subjects left the

relevant box blank (indicating that none of the given answers satisfied them) and - as asked by the experimenter - they wrote "angry order" or "irritation" instead. These comments probably indicate that the low - falling tone in commands gives a more straightforward meaning while the use of high - fall is associated with emphatic commands).

Now with regard to requests, the experimenter had produced 2 sentences, sentence 12 and sentence 13, both of them with a falling - rising tone. The results showed that most NSMG responded positively to the experimenter's expectations. The rest of the subjects (10 in sentence 12 and 14 in sentence 13) thought that these sentences had the meaning of "command". These subjects must have relied on the lexical and syntactic cues which strongly implied the meaning of command. It should also be pointed out that the results obtained from the limited data of commands and requests are important as the production test lacked relevant evidence. Therefore, relying on the perception test it can be claimed that NSMG have the tendency to distinguish between commands and requests by means of intonation; commands are produced with a falling tone (usually low - fall) while requests tend to be produced with a falling - rising tone.

Next, we move to sentences conveying no obvious emotional tension (3 and 6 in the table) and sentences conveying a certain degree of emotional tension (4, 14 15 in the table). Sentences 3 and and 6 were produced with a high and a low - falling tone respectively. As the relevant results showed, most NSMG gave the expected answer. In sentence 3, 12 subjects picked up the "surprise" choice while the rest 3 subjects had left the box empty. In sentence 6, 6 informants also thought that it was a warning and another 3 subjects had left the relevant box blank.

Sentences which conveyed emotional tension were 3 and all of them carried a "surprise"/"impressed" overtone. The experimenter's aim was to find out how many tones were related to statements conveying a certain degree of emotional tension, given that the production test had given a variety of tones. In the perception test sentence 4 was produced with a rise - fall - rise, sentence 14 with a high - fall and sentence 15 with a rise - fall (English - like type). The results showed that sentences 4 and 14 were interpreted in the expected way by most NSMG while in sentence 15 very few expected answers were obtained. In particular, in sentence 4, 1 alternative appeared, that is "question" by 3 NSMG while the rest 5 subjects did not seem to be very happy with choosing either a or c and left the

relevant box empty making instead comments such as "question and surprise". The fact that the majority of NSMG interpreted sentence 4 as an impressed statement shows that this tone is familiar to them and it is probably used more often in MG than the production test revealed. Sentence 14 was alternatively thought to be a plain "statement" by 5 NSMG. Lastly, sentence 15 showed that NSMG appeared to be little sensitive in recognizing sentences with a certain degree of emotional tension when produced with a rise - fall (English - like type); as the results showed, 29 informants had left the relevant box empty while 6 subjects thought sentence 15 was a statement with no obvious emotional tension. Notice, however, that in the production test the use of the rise - fall (English - like) tone was slightly more frequent than the use of the rise - fall - rise in this type of sentences.

Sentence 7 was expected to be interpreted as having the meaning of "reservation". This sentence was produced with a falling - rising tone and next to it the word "αλλά" (ala) ("but") was placed. The above results revealed that a large number of NSMG interpreted sentence 7 in the expected way. Also, 5 NSMG thought that this sentence was a statement, 9 thought it was expressing surprise (in the production

test some NSMG had produced a number of tokens which conveyed an overtone of surprise with a falling - rising tone) and just 1 left the relevant box blank.

Sentences 8, 9 and 11 were expected to be identified as "warnings". Sentence 8 was produced with a high - fall while sentence 9 with a fall - rise tone. Sentence 11 was also produced with a fall - rise tone and it was given in contrast to the lexically identical sentence 10 which was produced with a high - fall. The general intention here was to find out with how many tones NSMG are perceptually familiar and in this way to shed some light on the area of "warnings" which were not dealt with in the production test. Special interest was focused on the type of answers which would be obtained from sentences 9 and 11 as the experimenter's feeling was that they were absolutely meaningless in MG. As arising from the results, only sentence 8 was identified as carrying the meaning of "warning" (only 2 NSMG also thought it was a "statement") while in sentences 9 and 11 most informants appeared insensitive towards the meaning of warning, as 22 informants in sentence 9 and 25 informants in sentence 11 left the relevant boxes blank. (The rest of the answers are as follows: in sentence 9, 10 NSMG thought it was a question and 1 NSMG thought it was a statement and sentence 11 was

perceived as a negative statement by 17 subjects). On the other hand, sentence 10 to which 11 was juxtaposed was identified according to the experimenter's expectations without any problems (just 4 informants thought it was expressing reservation). Notice too that in sentence 9 words had been carefully chosen to strongly imply the meaning of "warning" whereas in sentence 11 subjects had to rely exclusively on tonal cues. Nevertheless, the result was absolutely the same, as most subjects appeared to be immune to the lexical cues given in sentence 9.

Lastly, sentence 5 was produced with a rising - falling tone with a delayed end (Greek type of rise - fall). It was a straightforward polar question and the results showed that it was identified as such by most NSMG. Occasionally, sentence 5 was thought to convey overtones of surprise by 6 NSMG while 1 NSMG thought it was a statement and another informant gave the following answer: "a andά little bit of c" (!).

The results of the perception test and the Greek data can be summed up as follows:

a. Generally speaking, the results of this test agreed with the results of the production test: the use of the falling tone, and especially the low - fall, is

associated with "statements with no obvious emotional tension". Occasionally, the use of the high - fall in the above types gives them a marked (emphatic) overtone. Commands were found to be typically associated with falling tones (especially with low - fall) while in "reservations" the only acceptable tone seemed to be the fall - rise. The rise - fall with the idiosyncratic delayed end indicated "polar questions". The high - fall and the rise - fall - rise are associated with sentences which convey a certain degree of "emotional tension". Lexical cues are also considered to play a crucial role in sentences which are produced with a high - fall and convey a certain degree of emotional tension.

b. The perception test offered important information in the area of sentences which expressed "commands", "warnings" and "requests". These sentences were easily identified as such when produced with a falling and a falling - rising tone respectively.

c. NSMG relied more on Greek intonation than on lexical cues in identifying sentences produced with nuclear tones they were not familiar *with*.

7. 2 NSMG WITH THE ENGLISH DATA

The English data consisted of 2 sections; the Greek and the English informants were tested on 9 sentences and 2 sentence pairs from section 1 and 4 sentence pairs from section 2.

With regard to these data the experimenter's aim was to check the perceptive skills of NSMG in E and compare them to the intonational tendencies they had exhibited in the production test when dealing with the same areas. Section 2 consisted of totally idiosyncratic sentence pairs where meaning distinction is not realized by means of intonation in MG. The intention of the experimenter here was to find out how NSMG were going to respond to these types intonationally since MG could not offer them any sort of help.

In section 1, the informants were tested in the following areas: "statements with no obvious emotional tension", "statements with a certain degree of emotional tension", "reservations", and "warnings", "commands" and "requests":

SECTION 1
1. they were born in ,Manchester
EXPECTED ANSWER: "statement with no obvious emotional tension" (b)
OTHER CHOICES: a. question c. surprise d. a and c
RESULTS; EXPECTED ANSWERS: 19/44: 43%
2. they were ˴five
EXPECTED ANSWER: "statement with no obvious emotional tension" (a)
OTHER CHOICES: b. surprise c. question d. negative statement e. b and c
RESULTS; EXPECTED ANSWERS: 40/44: 91%
3. they were ^five
EXPECTED ANSWER: "statement with a certain degree of emotional tension/surprise" (b)
OTHER CHOICES: a. statement with no obvious emotional tension c. question d. request
RESULTS; EXPECTED ANSWERS: 34/44: 77%
4. you have to ˅ do it (but...)

EXPECTED ANSWER: "reservation" (e)
OTHER CHOICES: a. statement b. warning c. command d. question
RESULTS; EXPECTED ANSWERS: 34/44: 77%
5. \don't throw water on the floor
EXPECTED ANSWER: "command" (c)
OTHER CHOICES: a. question b. request d. statement e. surprise
RESULTS; EXPECTED ANSWERS: 28/44: 64%
6. \don't use my ,pencil
EXPECTED ANSWER: "request" (c)
OTHER CHOICES: a. negative statement b. command d. reservation e. question
RESULTS; EXPECTED ANSWERS: 24/44: 54.5%
7. don't forget to in \vite him
EXPECTED ANSWER: "commmand" (e)
OTHER CHOICES: a. warning b. negative statement c. question d. request
RESULTS; EXPECTED ANSWERS: 20/44: 45.5%
8. you can ^come (but...)

EXPECTED ANSWER: "reservation" (a)
OTHER CHOICES: b. negative statement c. command d. warning
RESULTS; EXPECTED ANSWERS: 29/44: 66%
9. not \ me
EXPECTED ANSWER: "negative statement" (d)
OTHER CHOICES: a. command b. statement c. warning e. reservation
RESULTS; EXPECTED ANSWERS: 27/44: 61%
10. not ∨ me
EXPECTED ANSWER: "warning" (c)
OTHER ANSWERS: a. question b. negative statement d. reservation
RESULTS; EXPECTED ANSWERS: 7/44: 16%
11. be\have your, self
EXPECTED ANSWER: "request" (e)
OTHER CHOICES: a. statement b. command c. question d. surprise
RESULTS; EXPECTED ANSWERS: 32/44: 73%
12. she spent a hundred \pounds

EXPECTED ANSWER: "emotional tension/impressed statement" (a)
OTHER CHOICES: b. statement with no obvious emotional tension c. command d. question
RESULTS; EXPECTED ANSWERS: 25/44: 57%
13. they're also doing ling\uistics
EXPECTED ANSWER: "impressed statement" (b)
OTHER CHOICES: a. statement with no obvious emotional tension c. command d. reservation
RESULTS; EXPECTED ANSWERS: 6/44: 14%

Table 84

DISCUSSION

First, with regard to sentences that were expected to carry no obvious emotional tension, the experimenter had used a low - rise in sentence 1 and a low - fall in sentence 2. As the relevant results show, more expected answers were obtained from sentence 2 (only 4 NSMG left the box of this sentence empty). On the

other hand, in sentence 1 more unexpected answers occurred such as: "question" (13 NSMG), "surprise and question" (10 NSMG), "surprise" (2 NSMG). These results may well be explained as follows: in sentence 2, NSMG may have positively transfered their perceptual habits from MG as in MG similar types produced with a low - fall were easily identified as statements with no obvious emotional tension while the results obtained from sentence 1 may be explained in terms of the fact that statements of this type are not produced with a rising tone in MG (unless they have the meaning of non complete clauses) and so NSMG were left with no clue to facilitate their task.

Now moving to statements conveying a certain degree of emotional tension, the experimenter had selected 3 sentences produced with two different nuclear tones; sentence 3 was produced with an English - like rise - fall while sentences 12 and 13 were produced with a high - fall. The selection of lexical items in sentences 3 and 13 did not imply an emphatic context while in sentence 12 words were deliberately chosen so as to imply some sort of emphasis (surprise). The experimenter's intention here was to check whether lexical cues would influence the decision of the informants in types which were considered to convey emotional tension. The results showed that more

expected answers were obtained from sentence 3 (also, 9 NSMG thought it was a question and just 1 NSMG identified it as a statement with no emotional tension). These numbers show that NSMG are generally familiar with the use of rise - fall in statements which indicate a certain degree of emotional tension (although in the production test it was shown that the majority of NSMG use a high - fall in the same type of sentences). Also, the identification of sentence 3 as a question by some NSMG is a result of influence (negative in this case) from MG since in MG the use of a similar (though not the same) type of rise - fall is related to polar questions. Sentence 12 gave a big number of expected answers. This is another area where NSMG might have been helped from MG since in MG emotional overtone is generally conveyed with a high - fall (only 15 informants thought this sentence carried no emotional overtone and 4 NSMG had left the box empty). On the other hand, sentence 13 gave only 6 expected answers while 34 NSMG thought it carried no emotional tension and just 4 NSMG had been unable to give an answer. The results of sentence 13 do not really clash with the results of sentence 12 because although both sentences were produced with a high - fall an important difference exists between the two sentences; in sentence 12 the lexical items had been carefully selected so as to give an emphatic effect

while in sentence 13 the selection of words did not imply emotional tension. Therefore, NSMG had relied on lexical rather than intonational cues for identifying sentences 12 and 13.

Sentences 4 and 8 were expressing "reservations" and both of them were produced with a fall - rise. The above table shows that NSMG exhibited no particular difficulty in perceiving these sentences according to the experimenter's expectations. The appearance of the word "but" next to these sentences and the similarity in the intonational means that MG and E exhibit in expressing reservations were thought to be the basic reasons for the successful perception of most of these sentences (sentence 4 was also thought to be a statement by 2 NSMG, a command by 4 NSMG and 4 NSMG thought that this sentence was expressing a warning).

Sentences 9 and 10 were produced with a high - fall and a fall - rise tone respectively. The two sentences were lexically identical and were expected to be identified as a negative statement (9) and as a warning (10) according to their different tonal devices. The results showed that the overwhelming majority of the Greek informants were unable to identify sentence 10 as a warning (30 NSMG thought it was a negative statement and 7 thought it was

expressing a reservation). On the other hand, in sentence 9 the majority of NSMG gave the expected interpretation (some confusion though must have been caused as 9 NSMG thought it was a question, 4 thought it was a statement and another 4 thought it was expressing a reservation). Therefore, NSMG are insensitive to the English sentences which express warnings and this is due to the fact that in MG these types are only produced with a falling tone.

Sentences 5 and 7 were produced with a high - fall and were both expected to be regarded as commands. Indeed, the results showed that a large number of informants gave the expected answer (other answers in sentence 5 were: 10 thought it was a request, 1 thought it was a statement while 5 NSMG had left the relevant box blank; in sentence 7, 8 NSMG thought it was a negative statement and 16 thought it was a request). Although it is difficult to account for the fact that sentence 5 gave more expected answers than sentence 7, it is possible that the informants might have received extra help from the lexical items of sentence 5 which strongly implied the meaning of command (prohibition) whereas in sentence 7 the meaning of command was less straightforward through lexical cues. Following this argument a bit further we may also add that the meaning of command in 5 is also intensified by nucleus

placement on the negative particle "don't" which makes commands more familiar to NSMG, as in MG these types have the nucleus on the words with the prohibiting meaning.

Sentences 6 and 11 were produced with a falling - rising tone and were expected to be identified as requests. The results from the relevant data revealed that NSMG generally fulfilled the experimenter's expectations probably thanks to the fact that E and MG exhibit similar intonational devices in types which express requests (consider alternative answers for 6: 17 NSMG thought it was a command, 1 thought it was a negative statement and 2 NSMG had left the box empty; as for sentence 11: 6 NSMG thought it was a command, 2 thought it was a statement and 4 NSMG thought it indicated surprise. Keeping in mind what was mentioned above about the importance of lexical cues in commands, we can also assume that in sentence 6 the appearance of the prohibiting negative particle "don't" must have undoubtedly made many NSMG choose the "command" answer.

UNEXPECTED ANSWERS - SECTION 1[43]

1. they were born in ˌManchester
D - PRELOWER GROUP: 8/12: 66%
LOWER - POST LOWER GROUP: 7/14: 41%
UNIVERSITY STUDENTS: 10/15: 66%
2. they were ˌfive
D - PRELOWER GROUP: 2/12: 16%
LOWER - POST LOWER GROUP: 0/17: 0%
UNIVERSITY STUDENTS: 2/15: 13%
3. they were ^five
D - PRELOWER GROUP: 4/12: 33%
LOWER - POST LOWER GROUP: 3/17: 17%
UNIVERSITY STUDENTS: 3/15: 20%
4. you have to ˅do it (but...)
D - PRELOWER GROUP: 4/12: 33%
LOWER - POST LOWER GROUP: 5/17: 29%
UNIVERSITY STUDENTS: 1/15: 6%
5. ˈdon't throw water on the floor
D - PRELOWER GROUP: 6/12: 50%
LOWER - POST LOWER GROUP: 6/17: 35%

UNIVERSITY STUDENTS: 4/15: 26%
6. ˈdon't use my ˌpencil
D - PRELOWER GROUP: 8/12: 66%
LOWER - POST LOWER GROUP: 5/12: 41%
UNIVERSITY STUDENTS: 7/15: 46%
7. don't forget to in ˈvite him
D - PRELOWER GROUP: 9/12: 75%
LOWER - POST LOWER GROUP: 7/17: 41%
UNIVERSITY STUDENTS: 8/15: 53%
8. you can ˅ come (but...)
D - PRELOWER GROUP: 6/12: 50%
LOWER - POST LOWER GROUP: 5/17: 29%
UNIVERSITY STUDENTS: 4/15: 27%
9. not ˈme
D - PRELOWER GROUP: 10/12: 83%
LOWER - POST LOWER GROUP: 3/17: 18%
UNIVERSITY STUDENTS: 4/15: 26%
10. not ˅ me
D - PRELOWER GROUP: 11/12: 91%

LOWER - POST LOWER GROUP: 13/17: 76%
UNIVERSITY STUDENTS: 13/15: 20%
11. be 'have your,self
D - PRELOWER GROUP: 4/12: 33%
LOWER - POST LOWER GROUP: 5/17: 29%
UNIVERSITY STUDENTS: 3/15: 20%
12. she spent a hundred 'pounds
D - PRELOWER GROUP: 9/12: 75%
LOWER - POST LOWER GROUP: 4/17: 23.5%
UNIVERSITY STUDENTS: 6/15: 40%
13. they're also doing ling'uistics
D - PRELOWER GROUP: 12/12: 100%
LOWER - POST LOWER GROUP: 12/17: 70.5%
UNIVERSITY STUDENTS: 14/15: 93%
TOTAL
D - PRELOWER GROUP: 93/156: 60%
LOWER - POST LOWER GROUP: 75/221: 34%
UNIVERSITY STUDENTS: 80/195: 41%

Table 85

In section 2, subjects heard spoken versions of potentially ambiguous sentences and chose between two interpretations provided for them, labelled x and y. Informants were also told that they did not have to fill a box if they considered that none of the given meanings was the appropriate one. They were also free to choose the same interpretation for different spoken versions of the same sentence[44]. The intention of the experimenter here was similar to the intention in section 1, that is, to avoid biased or accidental answers that occasionally turn up in closed system choice.

The informants were tested on the following idiosyncratic areas: (1a) a negative statement where the quantifier "anyone" is negated with no reserve or selection versus (1b) a negative statement where the quantifier has a selective meaning[45], (2a) a negative statement where the negator affects a subset of the items denoted by the quantifier "all" versus (2b) a negative statement where the whole set of items denoted by the quantifier is negated[46], (3a) a statement with two nuclei (fall plus rise) with a "self - justificatory" and/or "appealing" meaning versus (3b) a statement with one nucleus (fall - rise) with a negative/non self - justificatory meaning [47] and (4a) a sentence consisting of a compound noun with

the nucleus on the adjective versus (4b) a sentence consisting of a compound phrase with the nucleus on the noun[48]. Consider now the number of expected answers given by NSMG with regard to this section:

SECTION 2
1a. she doesn't talk to ˋanyone
EXPECTED ANSWER: "she talks to no person at all" (y)
RESULTS; EXPECTED ANSWERS: 39/44: 89%
1b. she doesn't talk to ˇanyone
EXPECTED ANSWER: "she talks to some people only" (x)
RESULTS; EXPECTED ANSWERS: 36/44: 82%
2a. ˋall the children didn't ˏsleep
EXPECTED ANSWER: "only a number of children slept" (x)
RESULTS; EXPECTED ANSWERS: 15/44: 34%
2b. all the children didn't ˋsleep
EXPECTED ANSWER: "no child slept" (y)
RESULTS; EXPECTED ANSWERS: 18/44: 41%

3a. I `thought she was ,married
EXPECTED ANSWER: "and so she was" (x)
RESULTS; EXPECTED ANSWERS: 30/44: 68%
3b. I `thought she was married
EXPECTED ANSWER: "but I didn't know and it turned out she wasn't" (y)
RESULTS; EXPECTED ANSWERS: 20/44: 45%
4a. she is our new `Spanish teacher
EXPECTED ANSWER: "she is our new teaher who teaches Spanish" (x)
EXPECTED ANSWERS: 19/44: 43%
4a. she is our new Spanish `teacher
EXPECTED ANSWER: "she is our new teacher who comes from Spain"
RESULTS; EXPECTED ANSWERS: 12/44: 27%

Table 86

DISCUSSION

The first sentence was found to be the easiest for the Greek informants to interpret according to the experimenter's expectations and this was expected as 1a has quite a straightforward meaning (in MG the quantifier "κανένας" (kanenas),"anyone", is negated with no reserve or selection in such types). Surprisingly enough, in 2b many expected answers appeared. In the rest of the sentence pairs less expected answers occurred because NSMG were not familiar with their meaning distinction and some of the boxes were left empty or were filled with identical letters. The latter choice appeared when no distinction of the meaning of the two sentences of the pair could be achieved. Occasionally, one box was filled with 2 letters (as in 2b).

UNEXPECTED ANSWERS - SECTION 2

1a. she doesn't talk to ↘anyone
D - PRELOWER GROUP: 3/12: 25%
LOWER - POST LOWER GROUP: 1/17: 6%
UNIVERSITY STUDENTS: 1/15: 7%
1b. she doesn't talk to ↘ anyone

D - PRELOWER GROUP: 3/12: 25%
LOWER - POST LOWER GROUP: 2/17: 12%
UNIVERSITY STUDENTS: 3/15: 20%
2a. ˋall the children didn't ˏsleep
D - PRELOWER GROUP: 10/12: 83%
LOWER - POST GROUP: 8/17: 47%
UNIVERSITY STUDENTS: 11/15: 73%
2b. all the children didn't ˋsleep
D - PRELOWER GROUP: 9/12: 75%
LOWER - POST LOWER GROUP: 9/17: 52%
UNIVERSITY STUDENTS: 8/15: 53%
3a. I ˋthought she was ˏmarried
D - PRELOWER GROUP: 7/12: 58%
LOWER - POST LOWER GROUP: 5/17: 29.5%
UNIVERSITY STUDENTS: 2/15: 13%
3b. I ˇthought she was married
D - PRELOWER GROUP: 8/12: 67%
LOWER - POST LOWER GROUP: 7/17: 41%
UNIVERSITY STUDENTS: 9/15: 60%

4a. she is our new 'Spanish teacher
D - PRELOWER GROUP: 10/12: 83%
LOWER - POST LOWER GROUP: 6/17: 35%
UNIVERSITY STUDENTS: 9/15: 60%
4b. she is our new Spanish 'teacher
D - PRELOWER GROUP: 11/12: 92%
LOWER - POST LOWER GROUP: 9/17: 53%
UNIVERSITY STUDENTS: 12/15: 80%
TOTAL
D - PRELOWER GROUP: 61/96: 63.5%
LOWER - POST LOWER GROUP: 47/136: 34.5%
UNIVERSITY STUDENTS: 55/120: 46%

Table 87

7. 3 NES

The English informants were given exactly the same data as NSMG. The main purpose for testing the perceptual skills of the control group was to find out whether and to what extent they were able to

understand the meaning of the above sentences and sentence pairs. Especially in section 2 the aim was to find out whether contemporary near RP (still) uses intonation as the only means to distinguish between otherwise identical sentence pairs of the above type.

NES

SECTION 1
1. they were born in ˌManchester
RESULTS; EXPECTED ANSWERS: 10/12: 83%
2. they were ˌfive
RESULTS; EXPECTED ANSWERS: 11/12: 92%
3. they were ^five
RESULTS; EXPECTED ANSWERS: 12/12: 100%
4. you have to ˅do it (but...)
RESULTS; EXPECTED ANSWERS: 6/12: 50%
5. ˈdon't throw water on the floor
RESULTS; EXPECTED ANSWERS: 11/12: 92%
6. ˈdon't use my ˌpencil
RESULTS; EXPECTED ANSWERS: 3/12: 25%
7. don't forget to inˈvite him

RESULTS; EXPECTED ANSWERS: 9/12: 75%
8. you can ˅come (but...)
RESULTS; EXPECTED ANSWERS: 7/12: 58%
9. not ˋme
RESULTS; EXPECTED ANSWERS: 8/12: 67%
10. not ˅ me
RESULTS; EXPECTED ANSWERS: 8/12: 67%
11. beˋhave your,self
RESULTS; EXPECTED ANSWERS: 10/12: 83%
12. she spent a hundred ˋpounds
RESULTS; EXPECTED ANSWERS: 6/12: 50%
13. they're also doing lingˋuistics
RESULTS; EXPECTED ANSWERS: 2/12: 17%

Table 88

DISCUSSION

The general impression from the above table is that NES interpreted most sentences of this section according to the experimenter's expectations.

Sentence 1 clearly shows that NES are familiar with the use of the (low) rising tone in statements expressing no obvious degree of emotional tension. Only 2 informants thought this sentence was a question. Sentence 2 was even more easily identified as having the same meaning with sentence 1. Only 1 informant appeared not satisfied with the given choices and left the relevant box empty including the following comment: "they were definitely five, contradiction". With regard to statements conveying a certain degree of emotional tension, the results showed that more expected answers were obtained from sentence 3 which was produced with a rise - fall. This indicates that NES are fairly confident in associating this tone with emotional intensity. On the other hand, subjects were less unanimous in their choices when identifying sentences 12 and 13; sentence 12 was also thought to be a statement with no obvious emotional tension by 6 NES while sentence 13 almost failed to be perceived as an impressed statement by all subjects (10 NES thought it was just a statement). These results bear considerable similarity with the results given by NSMG. Thus we should admit that lexical cues usually do play an important role in identifying sentences which convey a certain degree of emotional tension and the presence of intonational cues is not always a sufficient means of identification.

Furthermore, these results encourage scepticism about the association of high - fall with a certain degree of emotional tension[49].

In sentences 4, 6 and 11 the selection of lexical and grammatical items seems to have played an important role in informants' judgements. This is proved by the following: in sentence 4 half of the subjects chose the letter which indicated warning ignoring the word "but" which was included in parenthesis. Sentence 6 failed to be interpreted as a request (9 NES thought it was a command) maybe due to the negative particle "don't". Sentence 11 was interpreted as a command by only 2 NES because lexical devices do not really imply prohibition and command. Sentence 5 was easily identified as a command (only 1 NES thought it had the meaning of request) and this choice might also have been helped by nucleus placement on "don't". In sentence 7 less expected answers were obtained (3 NES thought it expressed a warning and 2 NES thought it was a negative statement).

Lastly, examples 9 and 10 showed that NES can distinguish negative statements from warnings through intonational cues (sentence 9 was also considered to have the meaning of warning by 2 NES and the meaning of reservation by another 2 subjects, while 2 NES

thought sentence 10 was a question and another 2 also thought it expressed a warning).

SECTION 2
1a. she doesn't talk to ˋanyone
RESULTS; EXPECTED ANSWERS: 12/12: 100%
1b. she doesn't talk to ˇanyone
RESULTS; EXPECTED ANSWERS: 12/12: 100%
2a. ˋall the children didn't ˏsleep
RESULTS; EXPECTED ANSWERS: 2/12: 17%
2b. all the children didn't ˋsleep
RESULTS; EXPECTED ANSWERS: 4/12: 33%
3a. I ˋthought she was ˏmarried
RESULTS; EXPECTED ANSWERS: 12/12: 100%
3b. I ˇthought she was married
RESULTS; EXPECTED ANSWERS: 1/12: 8%
4a. she is our new ˋSpanish teacher
RESULTS; EXPECTED ANSWERS: 12/12: 100%
4b. she is our new Spanish ˋteacher
RESULTS; EXPECTED ANSWERS: 12/12: 100%

Table 89

DISCUSSION

The above numbers show that NES perceived and interpreted most of the above sentence pairs according to the experimenter's expectations. Nevertheless, to my surprise, sentences 2a, 2b and 3b gave a very small number of expected answers. Failure of the subjects to perceive the meaning of these sentences may indicate that NES were simply confused and, therefore, the appearance of the above unexpected answers was merely accidental. On the other hand, we may also assume that the meaning of these sentences is based on so subtle intonational differences that do not frequently operate (at least) in near RP. First, the selective meaning of the quantifier given by the falling - rising tone is probably not enough to distinguish between examples similar to 2a and negative statements. Also, the fact that the subtle difference between 3a and 3b was not successfully perceived makes the distinction between the fall - rise and the fall plus rise rather problematic. As observed from the results of section 1, NES gave particular importance to lexico - grammatical cues of the sentences they were tested on and sentence pairs 2 and 3 accept only one interpretation (that of sentences 2b and 3a) in written speech.

CONCLUSIONS

a. The perception test proved to be quite useful as it gave information about the way NSMG and NES understood and interpreted the sentences given to them in section 1 and section 2. This test also shed some light on areas which were not covered in the production test or was used as an extra source of evidence to support the intonational tendencies of NSMG and NES which appeared in the production test. In very limited cases the results of the perception test challenged some claims that were made in the production test (as, for instance, the disputable marked overtone of the Greek and the English high - fall).

b. Generally speaking, NSMG and NES exhibited considerable similarities in the way they understood the meanings of the sentences and sentence pairs given to them in the perception test because in most areas under examination speakers of both languages use similar intonationl devices. Nevertheless, in areas like "warnings", "requests" and the idiosyncratic cases of section 2 of the English data NSMG and NES gave different answers because the two languages exhibit different intonational treatments.

c. The identification of the meaning of the sentences of the perception test was achieved through intonational as well as lexical cues.

d. Greek informants were faced with considerable problems in interpreting sentences which are produced with different tonal devices in E and MG and, as a result, they gave many unexpected answers. More unexpected answers were obtained from the D - prelower group.

e. The results from NES revealed that intonation alone is sometimes not enough to distinguish between structures which are otherwise identical lexically and syntactically. For instance, the phonetic and meaning difference between the fall - rise and the fall plus rise tone or the use of the falling - rising tone on quantifiers have been considered to constitute very particular areas of English intonation which in my data were found to cause problems to NSMG. However, if NES also face problems with these idiosyncratic cases (as this was the case in my data), we may not need to overemphasize the importance of intonation to foreign learners as far as these areas are concerned.

41. M. Ferreira - Cruz (1983:156) has used a closed - choice procedure. As she claims, in an open choice answering procedure informants are left with a "limitless number of alternatives or with no answer at all". She further states that Leech (1970) favours the forced type of tests but he also gives an x- category which she calls "a dustbin" where subjects can dump there "every deviation from the standard test procedure". On the other hand, N. Benrabah (1990) offers 2 main choices (A or B) for her informants plus a third category (open choice, open box).

42. The grammatical terms given in multiple choice to NSMG in the Greek and the English data of the present test were written in MG, as NSMG had been familiar with these terms since high - school. Here these terms are given in E for the convenience of the reader.

43. In dealing with the perception test informants were not asked to write down their names because they might have felt embarassed doing so, as they were not always confident about their answers. Nevertheless, it was not difficult to identify each paper; most subjects were tested in pairs or separately and together with the tests they were also asked to submit

a questionnaire where - among other things - informants wrote their names. As soon as each informant had submitted the papers and left the room, the experimenter wrote on the top of each paper of the perception test each informant's name (according to the relevant questionnaire).

44. The general idea for the organization and presentation of the experimental data of this section of the perception test belongs to M. Ferreira - Cruz (1983).

45. For "Not...any" cases see also M. Ferreira - Cruz, 1983: 282, Lee, 1960:64-65, Hirst, 1977:122, Ladd:1980:161.

46. For "All...not" cases see also M. Ferreira - Cruz, 1983:285, Quirk et al, 1972:383, Sharp, 1958:149.

47. For this sentence pair I relied on my evidence on Cruttenden, 1986:110-111).

48. For "Compounding" see also M. Ferreira - Cruz, 1983:287-288.

49. As observed in Cruz's data (1983), the choice of the words in the sentences which were found to carry a marked overtone was such that it strongly implied emphasis. Consider, for instance one of her test sentences: "He passed his e^xams".

8. EVALUATION OF THE MOST TYPICAL UNEXPECTED ANSWERS OBTAINED FROM NSMG AND NES

8. 1 THE PRODUCTION TESTS

UNEXPECTED ANSWERS	SEVERITY	UNEXPECTED ANSWERS PER GROUP[50]			
1. "she has not written a letter to Peter"		A	B	C	D
a. she has `NOT written a letter to Peter	minimal inter-lingual	6	2	4	0
b. she has `NOT written a letter to ´PETER	minimal inter-lingual	4	2	4	2
2. "she hardly ever remembers her parents"		A	B	C	D
a. she `HARDLY ever remembers her parents	minimal inter-lingual	3	2	2	0
b. she hardly `EVER remembers her parents	minimal inter-lingual	1	1	4	1

3."where have you been?"		A	B	C	D
a. ˈWHERE have you been	minimal inter-lingual	3	0	0	0
b. ˈWHERE have you ˌBEEN	minimal inter-lingual	6	5	6	0
4. "which is the way to the station please?"		A	B	C	D
ˈWHICH is the way to the station ˌPLEASE	minimal inter-lingual	5	4	6	0
5. "are you going to the park?"		A	B	C	D
a. are you going to the ^PARK	minimal inter-lingual	3	4	6	0
b. ^ARE you going to the park	minimal inter-lingual	4	0	0	0

6. "shall I switch off the light?"		A	B	C	D
^SHALL I switch off the light	minimal inter-lingual	9	2	4	0

7. "have you finished with that?"		A	B	C	D
a. ^HAVE you finished with that	minimal inter-lingual	2	2	2	0
b. have you ^FINISHED with that	minimal inter-lingual	3	2	1	0

8. "are you a student?"		A	B	C	D
a. are you a ^STUDENT	minimal inter-lingual	3	4	3	0
b. ^ ARE you a student	minimal inter-lingual	2	1	1	0

9. "do you mind?"		A	B	C	D
,DO you mind	minimal trans-itional	1	4	3	0

10. "are you a student?"		A	B	C	D
,ARE you a student	minimal trans-itional	1	1	1	0

11. "is it five?"		A	B	C	D
,IS it five	minimal trans-itional	0	2	2	0

12. "could you please start tomorrow?"		A	B	C	D
could you please start TO/MORROW	minimal trans-itional	1	3	2	0

13. "did he mention to you anything about Peter?"		A	B	C	D
did he mention to you anything A$^{\vee}$BOUT Peter	minimal other	0	0	2	2
14. "when are they leaving for Greece?"		A	B	C	D
a. ˊWHEN are they leaving for Greece	minimal other	0	0	0	2
b. ˏWHEN are they leaving for Greece	small other	0	0	0	2
15. "where have you been?" she said		A	B	C	D
where have you ˋbeen / she ˏsaid	minimal inter-lingual	12	9	8	0
16. "she dressed and changed the baby"		A	B	C	D
she DRESSED / and changed the baby	severe other	1	1	3	0

17. "let me introduce you to my brother, Peter"		A	B	C	D
a. let me introduce you to my ˈBROTHER / ˈPETER	severe other	5	2	7	6
b. let me introduce you to my brother ˈPETER	severe other	2	0	1	0
c. let me introduce you to my > BROTHER / ˈPETER	severe other	0	0	0	1

18. "let me introduce you to my brother Peter"		A	B	C	D
a. let me introduce you to my ˈBROTHER Peter	severe other	3	1	0	2
b. let me introduce you to my ˈBROTHER ˌPETER	severe other	0	1	1	2

19. "the children who were very attentive did well in their exams"		A	B	C	D
the ˌCHILDREN / who were ˈVERY ATˌTENTIVE / did well in their exams	severe other	1	1	1	0
b. the ˅CHILDREN / who were ˈVERY ATˌTENTIVE / did well in their exams	severe other	4	0	1	0

20. "I didn't go to the doctor because I was ill... (but because of some other reason"		A	B	C	D
a. I didn't go to the doctor because I was ˈILL	severe other	0	2	0	0
b. I ˈDIDN'T go to the ˌDOCTOR / because I was ill	severe other	2	2	0	1

21. "I thought she was married" (and indeed she was")		A	B	C	D
a. I thought she was 'MARRIED	severe other	5	3	2	2

22. "I thought she was married" (but it turned out she wasn't)					
a. I 'THOUGHT she was married	severe other	5	4	5	2

23. "the phone's ringing"		A	B	C	D
a. the phone's 'RINGING	minimal inter-lingual	12	10	12	0

24. "I went to London on Tuesday"		A	B	C	D
I went to London on 'TUESDAY	minimal inter-lingual?	10	13	8	7

25. "Wilson had left the office when she got there"		A	B	C	D
Wilson had left the office when she got ˬTHERE	minimal other	4	1	2	0
26. "He passed his exams!"		A	B	C	D
a. he passed his E^XAMS (Greek-like rise-fall)	small inter-lingual	0	2	0	0
b. he passed his E²XAMS	moderate inter-lingual	3	6	4	0
27. "don't you remember that tall girl called Jane?"		A	B	C	D
a. ^DON"T you remember that tall girl called Jane	minimal inter-lingual	7	1	5	0
b. don't you remember that tall girl called ^JANE	minimal inter-lingual	5	3	4	0

28. "won't you tell me?"		A	B	C	D
,WON'T you tell me	minimal transitional	0	4	4	0
29. "I think what you say is true (but...) (reservation)		A	B	C	D
I think what you say is `TRUE	small other	8	6	7	2
30. "you are ready, aren't you?"		A	B	C	D
you are ready /^AREN'T you	small interlingual	9	3	7	0
31. "you are not afraid, are you?"		A	B	C	D
you are not afraid /^ARE you	small interlingual	8	0	0	0

32. "you are tired, are you?"		A	B	C	D
you are tired / ^ ARE you	small inter-lingual	6	4	3	0

33. "you didn't tell me you would go out, did you?" (you are sure of the answer and you are asking for confirmation")		A	B	C	D
a. you didn't tell me you would go out / ˈDID you	small trans-itional	3	3	1	0
b. you didn't tell me you would go out / ˌDID you	small trans-itional	4	2	2	2

34. "you are ready, aren't you?" (you are not sure of the answer and you are asking for information)		A	B	C	D
you are ready / `AREN'T you	small transitional	2	6	2	0

35. "John is here, is he?"		A	B	C	D
John is here / `IS he	small transitional	2	5	0	1

Table 90

8. 2 THE PERCEPTION TESTS

UNEXPECTED ANSWERS	SEVERITY	UNEXPECTED ANSWERS PER GROUP			
1. they were born in ,Manchester		A	B	C	D
a. perceived as a question	severe inter-lingual?	4	3	4	2
b. perceived as question+surprise	severe inter-lingual	4	4	6	0
2. they were ^five		A	B	C	D
perceived as a question	severe inter-lingual	3	4	2	0
3. you have to ˅do it (but...)		A	B	C	D
a. perceived as a command	small other	2	1	1	0
b. perceived as a warning	small other	1	2	1	6

4. \DON'T throw water on the floor		A	B	C	D
perceived as a request	moderate other	4	3	3	0

5. \DON'T use my ,PENCIL		A	B	C	D
perceived as a command	moderate other	8	4	5	9

6. not ˅me		A	B	C	D
a. perceived as a negative statement	moderate inter-lingual	10	8	10	0
b. perceived as a warning	moderate inter-lingual?	1	5	3	2

7. she doesn't talk to anyone		A	B	C	D
perceived as having the meaning: "she talks to some people only"	severe other	3	1	1	0

8. she doesn't talk to ˅anyone		A	B	C	D
perceived as having the meaning: "she talks to nobody"	severe inter-lingual	3	2	3	0

9. ˈall the children didn't ˌsleep		A	B	C	D
perceived as having the meaning: "no child slept"	severe inter-lingual?	10	8	11	10

10. all the children didn't ˈsleep					
perceived as having the meaning: "only a number of children slept"	severe other	9	9	8	8

11. I ˈthought she was ˌmarried		A	B	C	D
perceived as having the meaning: "but it turned out she wasn't"	severe other	7	5	2	0

12. I ˅thought she was married		A	B	C	D
perceived as having the meaning: "and indeed she was"	severe inter-lingual?	8	7	9	11

13. she is our new ˋSpanish teacher		A	B	C	D
perceived as having the meaning: "she is our new teacher who is Spanish"	severe inter-lingual	10	6	9	0

14. she is our new Spanish ˋteacher		A	B	C	D
perceived as having the meaning: "she is our new teacher who teaches Spanish"	severe inter-lingual	11	9	12	0

Table 91

The above tables refer to some of the most indicative unexpected answers obtained from the 44 NSMG and the 12 NES in producing and perceiving the experimental data of this work.

The term "unexpected" has been used instead of the word "error" which has been systematically avoided throughout the present work.

Concerning the collection of the unexpected answers, two criteria were used: a. Frequency: according to this criterion, the experimenter listed those unexpected choices made by approximately 30% or more of NSMG and 15% or more of NES, b. Typicality: this criterion covers cases which illustrated the most typical categories of unexpected answers. In this way, more than one version of a particular unexpected choice was given.

According to the problems they created in communication, the unexpected answers of tables 90 and 91 have been classified as:

A. SEVERE: where the unexpected answers were so serious that they could lead to failure or confusion in communication. For instance, using a pause after "dressed" in the sentence "She dressed and changed the baby" gives it an identical meaning to the sentence: "She dressed, and changed the baby". This choice is severe because the meaning of the former sentence is totally confused with the meaning of the latter sentence.

B. MODERATE: when the unexpected answer was considered less serious in terms of communication than the unexpected answer of type A. For instance, in the utterance 'DON'T throw water on the floor some subjects failed to perceive the meaning of command and thought it was expressing a request, nevertheless, the overall meaning of the sentence was not affected because of the lexical cues of this sentence.

C. SMALL: unexpected answers of this type were expected to cause less serious problems in communication than the unexpected answers of type A and B. For instance, the use of the falling (instead of the falling - rising) tone in sentences expressing reservation has not very serious consequencies in communication because the meaning of reservation is still maintained through lexical cues, that is, the

appearance of the word "but". Nevertheless, if the word "but" does not follow the sentence will fail to be perceived as expressing reservation (in the latter case such a type of unexpected answer could be characterized as "moderate").

D. MINIMAL: when the unexpected answer was not considered serious in terms of communication although this choice marked the sentences as non - English. For instance, the use of the rising - falling tone in the English polar questions of the experimental data is totally unacceptable in broad RP, nevertheless, the overall meaning of the sentences produced with this tone was maintained through syntactic means (inversion) which distinguish the English polar questions from statements.

According to whether the above unexpected answers could be attributed to interference or to other reasons, they were also classified as:

1. INTERLINGUAL[51]: this term covers those unexpected answers which were attributed to interference from MG because similar types in MG exhibit exactly the same tendency. It must be mentioned though that the characterization of some unexpected answers of this type is problematic because the same type of

unexpected answers was occasionally obtained from NES. This is why the term "interlingual" was sometimes accompanied by a question mark in the above tables (see case 24 of table 90 and cases 1, 6, 9 and 12 of table 91). Other cases strongly imply that they were a result of interference (as for instance the use of the rising - falling tone in the English polar questions; this tone never occurred in the polar questions produced by NES).

2. TRANSITIONAL: By this term I mean the unexpected answers which show that the Greek subjects who produced them were at an intermediate/transitional stage because their intonation consisted of some elements of Greek and some elements of English intonation. In fact, unexpected answers of this type could also be characterized as partly "interlingual" and partly "other" (see below). Consider, for instance, the following example: is it /FIVE: the low to high - rise tone is not frequent in RP and near RP. Nevertheless, it is phonetically very close to the low - rise tone. The term "transitional" also involves some problems, as it cannot be applied to NES.

4. OTHERS: In this category I have included all those unexpected answers which could neither be attributed to interference nor could they be regarded as parts of

the transitional stages of NSMG in learning the intonation of E.

It is important to keep in mind that the above characterization of unexpected answers has not been experimentally validated (for instance, with NES as judges). These answers should be understood as reflecting general perceptual intonational tendencies of NES. Proper evaluation would call for real communicative situations which - of course - are difficult to engineer in any type of test. Nevertheless, the type of unexpected answers given in tables 90 and 91 are based on the experimenter's experience of English intonation obtained through direct contact with NES and they should not be regarded as speculations only.

Generally speaking, most of the unexpected answers of the data were characterized as "minimal" as they were rather unlikely to cause serious problems in communication. They were particularly frequent in the intonation of NSMG while very few answers of this type appeared in the intonation of NES. If we consider these answers indicative of the most frequent intonational errors NSMG commit when speaking E, the above observation is encouraging as the implication is that the intonational differences between E and MG

generally operate on the level of attitude and they do not affect the level of mutual understanding. On the other hand, they also reveal that the intonation of these languages is different in many ways and NSMG need to undergo systematic training in order to master the intonation of E (see also chap 10).

Those answers which were classified as "severe" were considered to involve serious consequencies in personal communication and - as the results revealed - they were caused by failure to apply all three intonational choices (tonality, tonicity and tone) in the expected way (on the other hand, "minimal" unexpected answers were basically caused by failure to apply tonal and tonicity cues in the expected way). Severe unexpected answers were primarily found in NSMG, nevertheless, NES gave some examples of these answers too.

With regard to the rest of the answers, "small" unexpected answers basically characterized the intonation of NSMG while "moderate" unexpected answers were equally frequent in the intonation of NSMG and NES. Therefore, it is interesting that as the severity of the unexpected answers increases so does the number of unexpected answers among NES.

Tarone (1978) also admits that L2 adult learners are susceptible to errors which cannot be attributed to transfer but to lack of "empathy" with the native speakers and culture of L2. Indeed, pronunciation as well as intonation have often been claimed to be more sensitive indicators of empathy than other levels of linguistic study mainly because pronunciation and intonation errors have generally been regarded as not causing problems in communication. Therefore, it is believed that some L2 adult speakers have no motivation to change their pronunciation and intonation habits because these are not believed to create problems in communication. Although there is an element of truth in the above claim (most interlingual errors were characterizedas"minimal"), it was made obvious that in a considerable number of cases failure to make the right intonational choice resulted in potential problems in communication. The "lack of empathy" argument may have applied to some of the Greek subjects; in fact, one univeristy student (22nd, 19 years old) told me in the spontaneous conversation that pronunciation and intonation need not be taught to foreign learners because no matter how hard they may try they will never achieve a native - like performance. Such a position towards this area of foreign language learning makes us assume that the particular subject would make no effort to modify his

intonational habits or pay attention to the intonational cues given to him (indeed, it was found that the performance of the 22nd NSMG was rather poor).

Lastly, the above tables also reveal that the biggest number of unexpected ("interlingual" and "other" answers were given by the D - prelower group while the lower - post lower group constantly gave the best intonational performance, that is, the smallest number of unexpected ("interlingual" and "other") answers. This group of learners also gave the biggest number of "transitional" unexpected answers, a clear indication that they were trying to get rid of their Greek intonational habits and proceed towards the acquisition of the intonation of E. University students appeared to be in the middle of these two opposing groups by giving lesser "interlingual" and "other" unexpected answers than the D - prelower group and also fewer transitional unexpected answers than the lower - post lower group.

NOTES TO CHAPTER 8

50. The letters A, B, C and D stand for the D - prelower group, the lower - post lower group, the university students and the control group respectively.

51. The terms "interlingual" and "other" belong to Dulay, Burt and Crashen (1982:164).

9. GENERAL CONCLUSIONS/VALIDATION OF HYPOTHESES

As shown from the experimental data, NSMG were indeed faced with a variety of problems in producing and perceiving the intonation of E. These problems were found to emanate from unexpected choices of tonality, tonicity and tone.

C A and interference hypothesis interpreted a large number of unexpected answers since it was found that in those areas where E and MG exhibited similar intonational tendencies NSMG gave a small number of unexpected answers (as, for instance, placement of IG boundaries in the English text, the tonal treatment of clauses/phrases which convey closed and open listing, the distribution of contrastive and non contrastive stress, the tonal treatment of complete clauses/phrases, the tonal treatment of clauses which express reservation and the tonal treatment of confirmatory questions). On the other hand, many unexpected answers were obtained from those areas where the two languages exhibit different intonational tendencies (as shown, NSMG faced many problems in the area of tonicity of negative statements, tonicity and tone of polar questions, tone of statements expressing marked emotional state and the tone of question tags). Nevertheless, it should also be stated that the

interference hypothesis was not totally confirmed since intonational similarity between E and MG did not always prevent the appearance of unexpected answers (striking is the case of identical sentences whereby meaning distinction is realized through similar intonational cues in both languages, yet, some NSMG gave an unexpected performance. Also, C A was unable to explain why NES gave a number of unexpected answers too.

The data also revealed that the majority of unexpected answers were obtained from the D - prelower group. This group consisted of learners who belonged to the intermediate level and appeared to have transfered many Greek intonational patterns into E. Some university students came closer to the English performance and gave fewer unexpected answers than others (as observed, the 13th, 14th, 17th and 25th NSMG constantly gave a very small number of unexpected answers). This observation indicates that these informants come from totally different linguistic backgrounds as far as E is concerned and the fact that they entered university should not make us jump to the conclusion that this group should have given the best performance. As some university students told me in the spontaneous conversation, they had just the first certificate in E. On the other hand, the lower - post

lower group exhibited a regular tendency to produce and perceive a number of sentences of the English data according to the experimenter's expectations. Through personal contact (spontaneous conversation and other personal conversations) I learnt that this group of NSMG had been exposed to E for a longer time than the previous groups and were generally more confident with their E.

Tables 90 and 91 also showed that some unexpected answers were considered more serious in terms of communication than others so there appeared a need to grade these answers.

Answers classified as "interlingual" were just one type among many. A considerable number of unexpected answers were triggered by other reasons. These reasons (lack of intonational empathy, fatigue, boredom, failure to understand the given directions, embarrass ment, etc) can to a large extent only be guessed at (although in some subjects embarrassement could be easily detected).

10. PEDAGOGICAL IMPLICATIONS

The purpose of this chapter is to tackle some of the problems involved in teaching the intonation of E to NSMG.

Before starting to teach the intonation of E to NSMG, the teacher has to face a number of questions which I will attempt to answer in the following pages: 1. "Is the intonation of our mother tongue and the intonation of a foreign language worth studying?"

The present study showed that improper use of the intonation of MG and E resulted in serious or less serious problems in communication, that is, some intonation choices appear to be more crucial than others. Nevertheless, even in the best case (when no communication problems appear) an unexpected intonational choice makes the utterance sound odd and the foreign speaker's speech very different to that of the native speaker's. I hold the view that any learner of a foreign language should aim at achieving high performance at all levels of this language. This is not only the best but also the safest way to ensure successful communication at all times. On the other hand, if the learner is "selective" and decides to neglect some levels of language (as for instance,

pronunciation and intonation) he/she can never be sure of whether mutual understanding will be achieved as he/she is unable to anticipate what can and what cannot cause communication problems even in the mother tongue. Therefore, in the same way that we cannot afford to be "selective" in our mother tongue, we have no right to be selective when learning a foreign language particularly because we are less confident in the foreign language and it is even more difficult to judge in advance what can cause problems in communication.

2. "At which stage of learning of the Greek language should the intonation of MG be taught?" I would suggest that NSMG should be offered the chance to be familiar with the intonation of MG preferably before they are introduced to the intonation of E. The benefit of this approach is obvious: it is easier to proceed to the acquisition of the intonation of E as soon as the existence and functions of this area of language study have been made known in MG. The fact that E and MG are easily comparable because they both belong to the category of intonation languages undoubtedly facilitates the initial steps of the teacher and provides also a clue for intonational universals.

3. "In which books should the teaching of the intonation of MG be included?" It is essential that the introduction to the intonation of MG is integrated in the language syllabus (maybe grammar books) of the early school years. Unfortunately, NSMG are never introduced to the basic notions of intonation and even the very term intonation usually remains unknown to them. Even at the Greek university the systematic study of intonation is almost non-existent.

With regard to the teaching of the intonation of E to NSMG, the teacher has to answer questions which are partly similar to the ones presented above:

1. "When should NSMG start to learn the intonation of E?" The introduction to the English intonation should also start at an early age, provided of course, that English language learning starts when NSMG are very young. In any case, they should be exposed to the intonation of E together with the other aspects of the English language.

2. "Where should we include the teaching of the intonation of E?" The answer to this question is closely related to the age as well as level of proficiency in E; at an early stage the teaching of the intonation of E should only indirectly be achieved

(see also following pages) while later on NSMG can directly be exposed to the intonation of E through the general language and grammar books which refer to intonation. At an even more advanced level they can learn the English intonation more systematically through books which deal exlusively with this area.

3. "What materials shall we choose for teaching the intonation of E to NSMG?" Given that even in E textbooks on intonation are limited (see also Brazil et al, 1980), one does not really have much to choose. It is important that intonation syllabuses are pedagogically orientated. The learner needs a straightforward and easily memorizable model that he/she can learn through practice. In this respect, I believe that abstract theoretical frameworks have no place in practical courses for intonational training. As revealed from the present study, the intonation system of O'Connor and Arnold (1973) can still describe the intonational tendencies of current RP and near RP to a considerable extent. Nevertheless, my view is that the teacher should take into consideration more than one teaching materials and select from them what is best for teaching purposes. For example, the intonation system of O'Connor and Arnold is good for general terminology and training of nuclear and prenuclear patterns but it was found that

it gives no or very little information about tonicity and even less about tonality. It also adopts an exclusively attitudinal approach and neglects the grammatical and discoursal function of intonation. Similarly, Armstrong and Ward (1926) and Kingdon (1958) are only concerned with the uses of the E nuclear tones in specific sentence types. On the other hand, Crystal (1969) contains information about tonality, although the book itself is not really recommended for intonational practice. The presentation of the grammatical function of intonation in MG is particularly useful (yes/no questions). This study also revealed that the role of context is very crucial in any intonational choice. For instance, how can a learner be familiar with nucleus shifting if he/she is just given separate sentences to practice intonation?

It is also important to stress the intonational similarities and differences that E and MG exhibit because in this way many errors of NSMG can be predicted and avoided in areas where the two languages differ intonationally. First, the Greek learners should become familiar with the inventory of the English nuclear tones and compare/contrast it to the Greek inventory. Special attention should be given to the production and perception of the English rise -

fall and the compound fall plus rise. Tonicity of the English negative statements, wh - questions and negative questions should also be extensively practiced. Tonality was on the whole found not to cause many problems to NSMG but narrative tags should be repeatedly practiced. NSMG should also learn the meanings that the English nuclear tones convey (for instance, the rising - falling tone is used in yes/no questions but in E almost the same tone is used in utterances which convey emotional tension, or, in E the meaning of warning is conveyed with the fall - rise but in MG the same meaning is conveyed with a falling tone).

Any practical intonational material should also aim at making learners improve all four skills; in this direction NSMG should be given passages for intonational transcription, dialogues to read as well as separate sentences. It is of utmost importance that communication in classroom is realized in E at all times and teacher be alert to any types of intonational errors committed by NSMG.

4. "How should we teach the intonation of E to NSMG?" The methods and techniques of intonation teaching are are surely numerous and they should always be in accordance with the age of the Greek learners, the

level and the materials used. As it is the case with the other areas of the English language, the teaching of intonation to young learners should be achieved through various activities while overt instruction should be minimal. Consider, for instance, the following game which gives NSMG the chance to practice the intonation of the English polar questions: 2 players, A and B are essential - if not more. A thinks of an object which exists in the classroom; B's task is to try and find the object by asking questions where the answer will be only yes or no. The number of questions which B can ask are limited. In this way, the teacher can correct the improper intonation patterns of B and encourage him/her to repeat the questions by imitating the teacher's intonation patterns. Later on, as learners' exposure to E increases, intonation drills can take a more specific form. Older students who belong to the intermediate or a more advanced level can also receive overt instruction. As Brazil et al state (1980), the classroom is a teaching situation and does not really promote genuine communicative needs. It is up to the teacher to introduce techniques which will change the classroom into a social community (e.g role simulating drills).

Another technique to practice the formal configurations of the English tones is the use of the laryngograph and the oscilloscope. These equipments can offer considerable help to NSMG as they can obtain visual signal of their unacceptable intonation patterns and compare them to the ones produced by the teacher. In this way, they can improve the acceptability and intelligibility of their intonation.

As far as language learning is concerned, various opposing views have been expressed; some believe that learning should proceed from the simple to the difficult. Yet a problem automatically arises as to what can cause difficulty and non-difficulty. This study proved that difficulty of NSMG to deal with the intonation of E is closely (though not completely) related to interlingual distance. Therefore, some teachers may decide to present to Greek learners of E first those areas of intonation where E and MG exhibit considerable similarities predicting that those areas will be the easiest to learn. The problem is though that the teacher cannot postpone the teaching of fundamental intonational areas just because he/she is afraid that they may cause problems to learners. If something like that happens the natural continuation in intonation teaching will be disturbed. James (1980:153) also states that psychologists provide

evidence that early experience of positive transfer (+T) sets up expectations of continuing +T. As a result, NSMG may be disappointed when they are introduced to intonational differencies between the two languages. My view is that simultaneous presentation cannot be avoided although some grading of the intonational material is necessary because this facilitates the task of the teacher as well as the learner. Every stage of intonational presentation should be accompanied by training (practice) through repetition where the teacher should patiently listen to the intonational contours of all students, correct them and encourage them to imitate the expected intonational choice.

The above points can be briefly presented in the following way:

THE INTONATION OF MG	THE INTONATION OF E
1. Is it worth studying?	1.Is it worth studying?
yes	yes
2. Why?	2. Why?
better understanding of the mother tongue in production and perception	a. better understanding of the foreign language in production and perception b. avoiding the stigma of sounding non-English
3. When shall we teach the intonation of MG?	3. When shall we teach the intonation of E?
a. at an early age	at an early age
b. before the intonation of E	
4. In which books?	4. In which books?
general language/grammar books	a. general language/ grammar books
	b. intonation books

5. What materials?

a. easily memorizable
model, simple

b. more than one
syllabuses

c. integration of all intonational choices (tonality, tonicity, tone)

d. presentation and practice of all intonational functions (comparison/contrast to the intonational functions of MG)

e. presentation of intonational similarities and differencies between E and MG

f. improvement of all 4 skills intonational
transcription
reading passages
authentic dialogues
communication in E

6. Methods/techniques of teaching?

young age:

a. covert instruction

b. games

c. activities

d. role simulating drills

e. grading

f. listening - imitation of the teacher's tunes - repetition

older ages/intermediate/advanced level:

a. overt instruction - rules

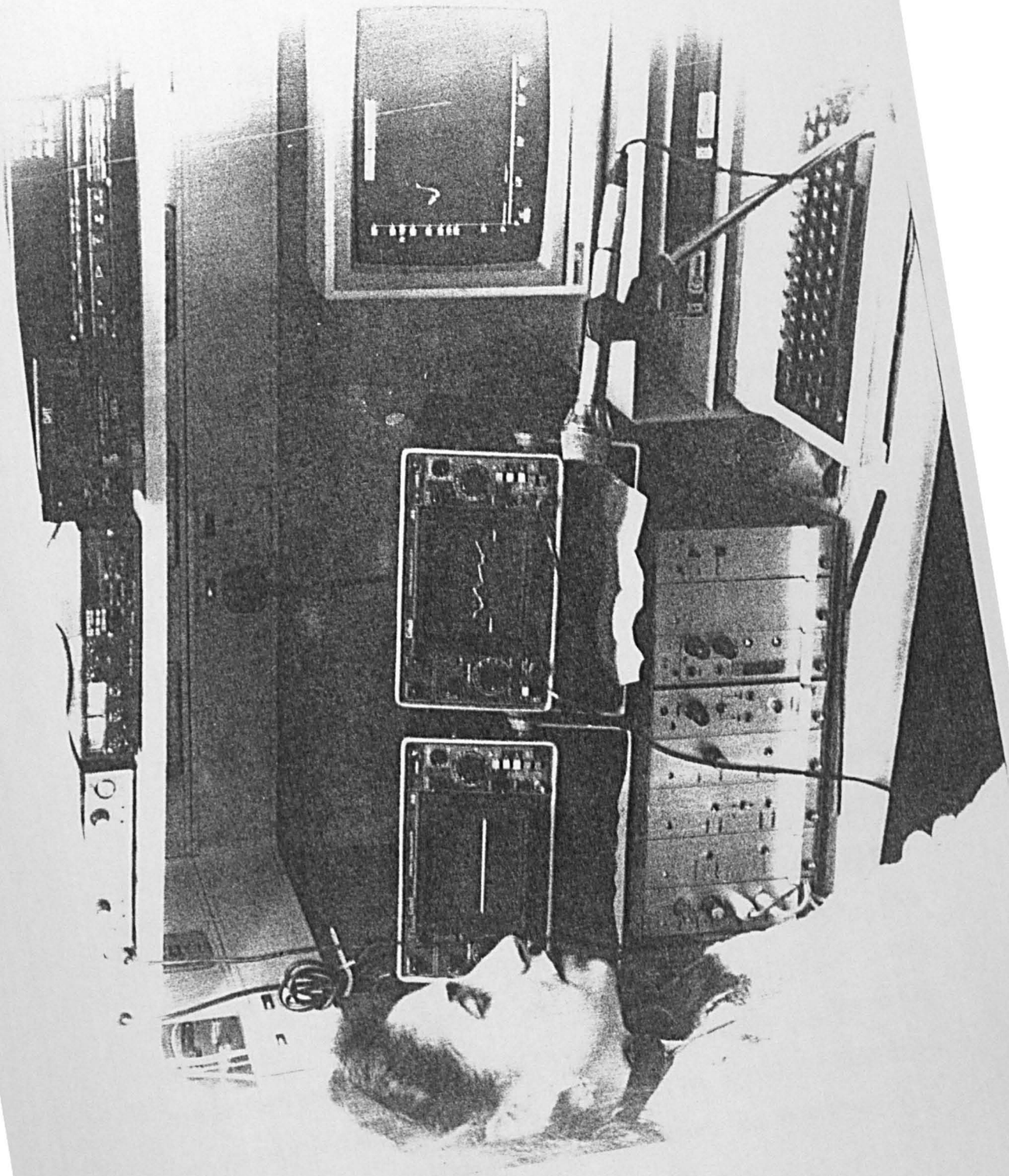
b. role simulating drills

c. audiovisual aids: tape - recorder

laryngograph/oscilloscope

d. grading

e. listening - imitation of the teacher's tunes - repetition



Practicing the English nuclear tones with the laryngograph and the Fundamental frequency generator.

APPENDICES TO SECTION 1 and SECTION 2

SECTION 1 (PRODUCTION TESTS)

APPENDIX I - THE GREEK DATA (NSMG)

I. a THE GREEK TEXT

ΥΠΟΔΕΙΞΕΙΣ: ΔΙΑΒΑΣΤΕ ΤΟ ΚΕΙΜΕΝΟ ΠΟΥ ΑΚΟΛΟΥΘΕΙ ΠΡΟΣΕΧΤΙΚΑ. ΜΕΤΑ ΔΙΑΒΑΣΤΕ ΤΟ ΠΑΛΙ ΜΕΓΑΛΟΦΩΝΑ ΣΕ ΚΑΝΟΝΙΚΟ ΤΟΝΟ. ΠΡΟΣΠΑΘΕΙΣΤΕ ΝΑ ΚΑΝΕΤΕ ΤΗΝ ΑΝΑΓΝΩΣΗ ΣΑΣ ΝΑ ΤΑΙΡΙΑΖΕΙ ΜΕ ΤΟΝ ΣΥΝΗΘΙΣΜΕΝΟ ΤΡΟΠΟ ΤΗΣ ΚΑΘΗΜΕΡΙΝΗΣ ΣΑΣ ΟΜΙΛΙΑΣ

ΤΑ ΣΙΝΕΜΑ ΞΑΝΑΡΧΟΝΤΑΙ;

Πρίν απο μερικά χρόνια κάποιοι ρώτησαν μιά ομάδα αρχιτεκτώνων στο Ντάλλας: "πώς θα πείσουμε τους θεατές να επιστρέψουν στις κινηματογραφικές αίθουσες; γιατί τώρα προτιμούν την τηλεόραση; "Δώστε τους", είπαν, "το μεγαλείο του χώρου και την τελειότητα του στερεοφωνικού ήχου". Οι Έλληνες επιχειρηματίες έπιασαν το μήνυμα. Κατάλαβαν ότι μιά τέλεια κινηματογραφική παραγωγή δεν αρκεί γιά να προσελκύσει το θεατή.

Μετά την Όπερα και το Ράδιο Σίτυ, φέτος ανακαινίσθηκαν το Αττικόν, το Ιντεάλ και το Τροπικάλ. Έχουμε κιάλλους κινηματογράφους: το Έμπασυ, το Αθήναιον, Ετουάλ...

Μέχρι το τέλος της χειμερινής σαιζόν, υπολογίζεται οτι οι περισσότερες κεντρικές αίθουσες θα έχουν εφοδιαστεί με αυτό το περίφημο, πολυκάναλο στερεοφωνικό συγκρότημα το οποίο εξαφανίζει τα ηχητικά προβλήματα. Τι οδήγησε όμως τους επιχειρηματίες να επενδύσουν στις άδειες μέχρι πριν απο λίγο αίθουσες; Ξέρετε; Ο κύριος Μιχαιλίδης, διευθυντής της Έλκε, πιστεύει οτι το επιτυχημένο πείραμα της Όπερας και η απελευθέρωση (!) του εισιτηρίου, έκανε πολλούς επιχειρηματίες να επενδύσουν στον κινηματογράφο. Τι σημαίνει αυτό δηλαδή; Η κρίση ξεπεράστηκε; Οι κινηματογράφοι βλέπουν πλέον τις εισπράξεις να ανεβαίνουν κατακόρυφα; Όχι! Ειδικά στην επαρχία πολύ λίγα πράγματα έχουν αλλάξει. Μοναδικός επενδυτής: ο ιδιωτικός τομέας. Η Όπερα και το Ράδιο Σίτυ ανακαινίστηκαν με χρήματα που προέρχονταν απο το βίντεο. Ο κύριος Σκούρας μας λέει: "Είπα στον εαυτό μου: επένδυσε σαράντα εκατομμύρια! Κιάν αποτύχω; Υπάρχει τέτοια περίπτωση; Δεν υπάρχει;" Περισσότερο απο αγάπη για την αίθουσα όμως, πήρε το ρίσκο. Και να! Το Αττικόν! Ο κινηματογράφος έχει γίνει αγνωριστος! Τοποθετηθηκε ντολμπυ συστεμ, μοκετα, μονάδα εξαερισμού και μόνωσης και το βασικώτερο: υπάρχει ικανοποιητική θέρμανση!

Αλλά και για το Ιντεάλ, το σινεμά που πρόβαλε πρώτο στην Ελλάδα τον πολίτη Κέιν κ.λ.π, οι αδερφοί Σπέντζου διέθεσαν πενήντα εκατομύρια! Έτσι το σινεμά αυτο δεν

πάει πίσω.

Εσωτερικά ο χώρος μοιάζει με ναό. Επίσης, προγραμματίζεται να δημιουργηθεί ένα κατάστημα που θα πουλάει σάουντρακ ταινιών. Ο κύριος Σπέντζος μας είπε: "Κύριοι, θέλουμε να ξανακάνουμε το Ιντεάλ πολιτιστικό κέντρο".

Θα πρέπει να αναφέρουμε ότι μιά σημαντική καινοτομία του νέου Ιντεάλ θα είναι τα ειδικά εφέ. Τέτοιο σύστημα, διαθέτουν μόνο οκτώ κινηματογράφοι σ'ολόκληρη την Ευρώπη, ενώ στην Ελλάδα είναι ο πρώτος που επιχειρεί μιά τέτοια εγκατάσταση. Οι 'Ελληνες επιχειρηματίες, όμως, δεν σκοπεύουν να σταματήσουν εδώ. Σκέφτονται, αν το επιτρέψουν οι συνθήκες, να προχωρήσουν στη δημιουργία πολλών κινηματογραφικών αιθουσών που θα στεγάζονται στον ίδιο χώρο. Προγραμματίζουν να προσφέρουν υπερπολυτελή συγκρότηματα στα οποία θα υπάρχουν μπαρ, εστιατόρια και ... κομμωτήρια! Ας είναι! Σαν πολύ δεν ξανοίγονται;

II. b THE GREEK SENTENCES

ΥΠΟΔΕΙΞΕΙΣ: ΔΙΑΒΑΣΤΕ ΤΙΣ ΠΑΡΑΚΑΤΩ ΠΡΟΤΑΣΕΙΣ ΠΡΟΣΕΧΤΙΚΑ. ΜΕΤΑ ΕΠΑΝΑΛΑΒΕΤΕ ΜΕΓΑΛΟΦΩΝΑ ΠΡΟΣΠΑΘΩΝΤΑΣ ΝΑ ΦΑΝΤΑΖΕΣΤΕ ΠΩΣ ΘΑ ΛΕΓΟΤΑΝ Η ΚΑΘΕ ΠΡΟΤΑΣΗ ΣΤΗΝ ΚΑΘΗΜΕΡΙΝΗ ΜΑΣ ΟΜΙΛΙΑ

1. a'Εγραψε, και παρέδωσε το γράμμα
   b'Έγραψε και παρέδωσε το γράμμα

2. a Να σου συστήσω τον αδερφό μου, Πέτρο
   b Να σου συστήσω τον αδερφό μου Πέτρο

3. Οι καρέκλες, τα τραπέζια, τα σκαμνάκια και οι πολυθρόνες βρίσκονται εδώ

4. a Οι γιατροί που ξέρουν τη δουλειά τους Θεραπεύουν τους ασθενείς
   b Οι γιατροί, που ξέρουν τη δουλειά τους, θεραπεύουν τους ασθενείς

5. a Δεν της μίλησα, για να μην τη στενοχωρήσω
   b Δεν της μίλησα για να μην τη στενοχωρήσω... (αλλα για κάποιον άλλο λόγο)

6. a Φανταζόμουν πως θα βρέξει (αλλὰ έκανα λάθος, δεν έβρεξε)

b Φανταζόμουν πως θα βρέξει (και τελικά έβρεξε)

7. Η ζωή τους κυλούσε ήρεμα

8. Το τηλέφωνο χτυπά

9. Πήγα στο Λονδίνο την Τρίτη

10. Ο πατέρας της δεν αισθάνεται καλά σήμερα

11. Δεν διαβάζει ποτέ στο κρεββάτι

12. Πότε φεύγετε για το Παρίσι;

13. Γιατί φαίνεσαι τόσο στενοχωρημένη;

15. a Ποιός θα τον φωνάξει;

b Ποιος θα τον φωνάξει παρακαλώ; (ευγενική ερώτηση)

16. Είσαι ταλαιπωρημένος;

17. Σ'αρέσει το σινεμά;

18. Να κλείσω το φώς;

19. Δε θέλεις άλλο καφέ;

20. Δε θα μου τη δώσεις;

21. Τελείωσες με τις σημειώσεις;

22. Δε θυμάσαι τι ωραία είχαμε περάσει πέρυσι το καλοκαίρι;

23. a Δεν πεινάς; (ερώτηση)
    b Δεν πεινά (άρνηση)
    c Δεν πεινάτε; (ερώτηση για επιβεβαίωση)

24. Πήρε το μεγαλύτερο βαθμό στην τάξη του! (δείχνετε έκπληξη)

25. a 'Εχω σταφύλια, ξυνόμηλα, φράουλες...
    b 'Εχουμε να ψωνήσουμε γάλα, ψωμί, γιαούρτι και φρούτα

26. 'Ερχεσαι μαζί μας; (ερώτηση για επιβεβαίωση)

27. Το ήξερα βέβαια (αλλά...) (δείχνετε επιφύλαξη)

28. Είσαι έτοιμος, δεν είσαι;

29. Δεν πεινάς, πεινάς;

30. Ήρθε ο Πέτρος, έτσι;

31. Το αλισβερίσι, Μανώλη, θέλει να τάχεις τετρακόσια

32. Κι όμως, μήνας μπαίνει, μήνας βγαίνει μου βουτάει τα μισά κέρδη

33. Ελένη μου, δε θύμωσες, θύμωσες;

34. Φοβάσαι;

35. Θα το σκάσεις;

37. Έφερες τα ψώνια;

38. Έκανες ότι σου είπα;

39. Ως τα δεκάξι μου χρόνια, δεν είχα φορέσει παπούτσια

40. Ο τόπος μας ηταν ήσυχος. Ισαμε το 1914 δεν είχε ακουστεί να γίνει φονικό

41. Πριν απο μερικά χρόνια είχαν τσακωθέι και δεν μιλιόντουσαν

42. Πότε ο γάμος;

43. Γιατί βιάζεσαι τόσο;

44. Είχαν ήδη φύγει για τη Γεμανία και έτσι δεν την περίμεναν στο αερόδρομιο

45. Που θα πας για διακοπές;

46. Της μίλησες για τον Πέτρο;

APPENDIX II: THE ENGLISH DATA (NSMG)

II. a THE ENGLISH TEXT

ΥΠΟΔΕΙΞΕΙΣ: ΔΙΑΒΑΣΤΕ ΤΟ ΚΕΙΜΕΝΟ ΠΟΥ ΑΚΟΛΟΥΘΕΙ ΠΡΟΣΕΚΤΙΚΑ. ΜΕΤΑ ΔΙΑΒΑΣΤΕ ΤΟ ΠΑΛΙ ΜΕΓΑΛΟΦΩΝΑ ΣΕ ΚΑΝΟΝΙΚΟ ΤΟΝΟ. ΠΡΟΣΠΑΘΕΙΣΤΕ ΝΑ ΚΑΝΕΤΕ ΤΗΝ ΑΝΑΓΝΩΣΗ ΣΑΣ ΝΑ ΤΑΙΡΙΑΖΕΙ ΜΕ ΤΟΝ ΣΥΝΗΘΙΣΜΕΝΟ ΤΡΟΠΟ ΤΗΣ ΚΑΘΗΜΕΡΙΝΗΣ ΣΑΣ ΟΜΙΛΙΑΣ

Linda was a few minutes late. Wilson had left the office when she got there. His secretary told her he would be back in afew minutes. She had to sit down and wait for a few minutes in the outer office. "I will never get this job!" she told herself. For a moment, she wanted to run out of the building. Just then, Wilson came through the door and hurried in to his office. A few minutes later his secretary took Linda in. Linda said: "I am sorry, sir, I'm late!" They talked for a few moments and then they got down into real business. He took out her letter of application: "You have never worked in radio or television before, have you? Why? Have you been afraid of something? Do you really like this work? Do you think you can succeed?" Linda answered, she was afraid she hadn't worked in this work before. She was trembling! Now she was even more sure that she would not get the job.

Wilson asked her a few more questions: "You are not afraid, are you?" he asked. "No..." she replied. He continued with a nice, easy going tone of voice: "Could you please start tomorrow?" he asked with a smile. It seemed she had got the job after all!

II. b THE ENGLISH SENTENCES

ΠΟΔΕΙΞΕΙΣ: ΔΙΑΒΑΣΤΕ ΤΙΣ ΠΑΡΑΚΑΤΩ ΠΡΟΤΑΣΕΙΣ ΠΡΟΣΕΧΤΙΚΑ. ΜΕΤΑ ΕΠΑΝΑΛΑΒΕΤΕ ΜΕΓΑΛΟΦΩΝΑ ΠΡΟΣΠΑΘΩΝΤΑΣ ΝΑ ΦΑΝΤΑΖΕΣΤΕ ΘΑ ΛΕΓΟΤΑΝ Η ΚΑΘΕ ΠΡΟΤΑΣΗ ΣΤΗΝ ΚΑΘΗΜΕΡΙΝΗ ΜΑΣ ΟΜΙΛΙΑ.

1. a She dressed and changed the baby
   b She dressed, and changed the baby

2. a Let me introduce you to my brother, Peter
   b Let me introduce you to my brother Peter

3. Mary, John, Peter and Tom are students

4. a The children, who were very attentive, did well in their exams
   b The children who were very attentive did well in their exams

5. a I didn't go to the doctor, because I was ill
   b. I didn't go to the doctor because I was ill...

(αλλά για κάποιον άλλο λόγο)

6. a I thought she was married (και πραγματικά ήταν)
   b I thought she was married (αλλα έκανα λάθος, δεν ήταν)

7. They all had a wonderful day

8. The phone's ringing

9. They went to Paris on Monday

10. She has not written a letter to Peter

11. She hardly ever remembers her parents

12. When are they leaving for Greece?

13. Why is she so sad today?

14. Which is the way to the station please?

15. Are you tired?

16. Are you going to the park?

17. Shall I switch off the light?

18. Aren't you happy?

19. Won't you tell me?

20. Have you finished with that?

21. Don't you remember that tall girl called Jane?

22. a You are not hungry (αρνητική πρόταση)

b You are not hungry? (ερωτηματική πρόταση)

c You are not hungry then (ερώτηση για επιβέβαιωση)

23. He passed his exams! (έκπληξη)

24. a They have apples, grapes, apricots, strawberries...

b They have apples, grapes and strawberries

25. You are coming with us then (ερώτηση για επιβέβαιωση)

26. I think what you say is true... (but) (επφύλαξη)

27. You are ready, aren't you? (δεν είστε σίγουροι για

την απάντηση, ρωτάτε για πληροφορία)

28. You are not hungry, are you? (ίδια οδηγία με την 27)

29. John is here, is he?

30. Are they good these cookies?

31. "Where have you been?" she said

32. You didn't tell me you would go out, did you? (είστε σίγουροι για την απάντηση, ρωτάτε για επιβεβαίωση)

33. Why don't you like coffee?

34. What an awful journey! (εκφράζετε δυσαρέσκεια)

35. How nice to see you! (εκφράζετε έκπληξη)

36. Are you a student?

37. What are they talking about?

38. Does it matter?

39. Do you mind?

40. He left a month ago and they have not seen him since then

41. I' m not interested in maths

42. Will you go out tonight?

43. Be yourself, will you?

44. You are tired, are you?

45. Despite all their efforts they have not found him

46. a _ Did he mention to you anything about Peter?

b _ No, he does not know Peter

47. You have not met her before, have you? (**είστε σίγουροι γιά την απάντηση, ρωτάτε για επιβέβαιωση**)

APPENDIX III: THE ENGLISH DATA (NES)

III. a THE ENGLISH TEXT (same as in appendix II. a)

DIRECTIONS: READ THE FOLLOWING PASSAGE CAREFULLY. THEN READ IT AGAIN ALOUD IN NORMAL TONE OF VOICE. TRY TO MAKE YOUR READING AGREE WITH YOUR USUAL EVERYDAY WAY OF TALKING.

III. b THE ENGLISH SENTENCES (same as in appendix II. b)

DIRECTIONS: READ THE FOLLOWING SENTENCES CAREFULLY. THEN REPEAT THEM ALOUD TRYING TO IMAGINE HOW EACH SENTENCE COULD BE PRODUCED IN OUR EVERY DAY CONVERSATION.

SECTION 2 (PERCEPTION TESTS)

APPENDIX IV: THE GREEK DATA (NSMG)

ΥΠΟΔΕΙΞΕΙΣ: ΔΙΑΒΑΣΤΕ ΤΙΣ ΑΚΟΛΟΥΘΕΣ ΠΡΟΤΑΣΕΙΣ ΠΡΟΣΕΧΤΙΚΑ ΓΙΑ ΠΕΝΤΕ ΛΕΠΤΑ. ΜΕΤΑ ΑΚΟΥΣΤΕ ΤΙΣ ΙΔΙΕΣ ΠΡΟΤΑΣΕΙΣ ΕΤΣΙ ΟΠΩΣ ΔΙΑΒΑΖΟΝΤΑΙ ΑΠΟ ΤΗΝ ΟΜΙΛΗΤΡΙΑ ΣΤΟ ΚΑΣΣΕΤΟΦΩΝΟ. Η ΚΑΘΕ ΠΡΟΤΑΣΗ ΘΑ ΕΠΑΝΑΛΗΦΤΕΙ ΠΕΝΤΕ ΦΟΡΕΣ ΜΕ ΜΕΣΟΛΑΒΗΣΗ 2''. ΣΤΟ ΤΕΛΟΣ ΤΗΣ ΕΠΑΝΑΛΗΨΗΣ ΚΑΘΕ ΠΡΟΤΑΣΗΣ ΚΑΙ ΠΡΙΝ ΑΚΟΥΣΤΕΙ Η ΕΠΟΜΕΝΗ ΠΡΟΤΑΣΗ ΠΑΡΕΜΒΑΛΕΤΑΙ ΕΝΑ ΔΙΑΣΤΗΜΑ 5''. ΔΙΠΛΑ ΑΠΟ ΚΑΘΕ ΠΡΟΤΑΣΗ ΥΠΑΡΧΕΙ ΕΝΑ ΑΔΕΙΟ ΚΟΥΤΙ ΚΑΙ ΚΑΤΩ ΑΠΟ ΚΑΘΕ ΠΡΟΤΑΣΗ ΑΝΑΦΕΡΟΝΤΑΙ ΟΡΙΣΜΕΝΟΙ ΓΡΑΜΜΑΤΙΚΟΙ ΟΡΟΙ ΤΩΝ ΟΠΟΙΩΝ ΠΡΟΗΓΕΙΤΑΙ ΕΝΑ ΓΡΑΜΜΑ ΤΗΣ ΑΛΦΑΒΗΤΑΣ. ΑΦΟΥ ΑΠΟΦΑΣΙΣΕΤΕ ΠΟΙΟΣ ΓΡΑΜΜΑΤΙΚΟΣ ΟΡΟΣ ΚΑΘΕ ΦΟΡΑ ΤΑΙΡΙΑΖΕΙ ΣΕ ΚΑΘΕ ΠΡΟΤΑΣΗ ΤΟΠΟΘΕΤΕΙΣΤΕ ΤΟ ΑΝΤΙΣΤΟΙΧΟ ΓΡΑΜΜΑ ΤΗΣ ΑΛΦΑΒΗΤΑΣ ΣΤΟ ΕΚΑΣΤΟΤΕ ΑΔΕΙΟ ΚΟΥΤΙ.

ΠΡΟΤΑΣΗ 1: η ˌσύχασε

a. διαταγή b. ερώτηση c. παράκληση d. έκπληξη

ΠΡΟΤΑΣΗ 2: ˋκλεί ς το παράθυρο

a. ερώτηση b. διαταγή c. παράκληση d. κατάφαση e. έκπληξη

ΠΡΟΤΑΣΗ 3: μάζεψε τα ρούχα του

a. αρνητική πρόταση b. ερώτηση c. πρόταση χωρίς φανερή συναισθηματική φόρτηση d. έκπληξη

ΠΡΟΤΑΣΗ 4: Νέφυγε

a. συναισθηματική φόρτηση/έκπληξη b. πρόταση χωρίς φανερή συναισθηματική φόρτηση c. ερώτηση d. διαταγή

ΠΡΟΤΑΣΗ 5: ήθελε να πάει σινεμά

a. κατάφαση b. παράκληση c. αρνητική πρόταση d. έκπληξη

ΠΡΟΤΑΣΗ 6: ήταν πέντε

a. πρόταση χωρίς φανερή συναισθηματική φόρτιση b. πρόταση που δείχνει έκπληξη

ΠΡΟΤΑΣΗ 7: Ντόξερε

a. ερώτηση b. προειδοποίηση c. επιφύλαξη
d. πρόταση που δείχνει έκπληξη e. καταφατική πρόταση

ΠΡΟΤΑΣΗ 8: θα `πέσεις

a. αρνητική πρόταση b. επιφύλαξη c. ερώτηση
d. προειδοποίηση

ΠΡΟΤΑΣΗ 9: θα μπλέξεις ^άσχημα

a. προειδοποίηση b. επιφύλαξη c. καταφατική πρόταση
d. ερώτηση e. αρνητική πρόταση

ΠΡΟΤΑΣΗ 10: όχι ο `Πάνος

a. παράκληση b. διαταγή c. αρνητική πρόταση
d. επιφύλαξη

ΠΡΟΤΑΣΗ 11: όχι ο ^Πάνος

a. προειδοποίηση b. επιφύλαξη c. ερώτηση d. καταφατική πρόταση

ΠΡΟΤΑΣΗ 12: `μη ρίχνεις νερά στο χαλί

a. έκπληξη b. παράκληση c. ερώτηση d. διαταγή
e. αρνητική πρόταση

ΠΡΟΤΑΣΗ 13: στα`μάτα να κάνεις τον,έξυπνο

a. αρνητική πρόταση b. έκπληξη c. διαταγή d. καταφατική πρόταση

ΠΡΟΤΑΣΗ 14: ξόδεψε εκατό `λίρες

a. ερώτηση b. συναισθηματική φόρτηση c. καταφατική πρόταση d. παράκληση

ΠΡΟΤΑΣΗ 15: μου τηλε`φώνησε

a. πρόταση χωρίς φανερή συναισθηματική φόρτηση
b. ερώτηση c. προειδοποίηση d. παράκληση

APPENDIX V: THE ENGLISH DATA (NSMG)

SUBSECTION 1

ΠΡΟΤΑΣΗ 1: They were born in ˏManchester

a. ερώτηση b. κατάφαση χωρίς φανερή συναισθηματικκή φόρτηση c. έκπληξη d. a και c

ΠΡΟΤΑΣΗ 2: They were ˎfive

a. κατάφαση χώρις φανερή συναισθηματική φόρτηση b. έκπληξη c. ερώτηση d. αρνητική πρόταση e. b και c

ΠΡΟΤΑΣΗ 3: They were ∧ five

a. κατάφαση χωρίς φανερή συναισθηματική φόρτηση b. κατάφαση με κάποιο βαθμό συναισθηματικής φόρτησης c. ερώτηση d. παράκληση

ΠΡΟΤΑΣΗ 4: You have to ˇdo it... (αλλά...)

a. κατάφαση b. προειδοποίηση c. διαταγή d. ερώτηση e. επιφύλαξη

ΠΡΟΤΑΣΗ 5: `Don't throw water on the floor

a. ερώτηση b. παράκληση c. διαταγή d. κατάφαση e. έκπληξη

ΠΡΟΤΑΣΗ 6: `Don't use my pencil

a. αρνητική πρόταση b. διαταγή c. παράκληση
d. επιφύλαξη e. ερώτηση

ΠΡΟΤΑΣΗ 7: Don't forget to in\vite him

a. προειδοποίηση b. αρνητική πρόταση c. ερώτηση
d. παράκληση e. διαταγή

ΠΡΟΤΑΣΗ 8: You can \/come

a. επιφύλαξη b. αρνητική πρόταση c. διαταγή d. προειδοποίηση

ΠΡΟΤΑΣΗ 9: Not \me

a. διαταγή b. κατάφαση c. προειδοποίηση d. επιφύλαξη

ΠΡΟΤΑΣΗ 10: Not ˩me

a. ερώτηση b. αρνητική πρόταση c. προειδοποίηση
d. επιφύλαξη

ΠΡΟΤΑΣΗ 11: Be˦have your,self

a. κατάφαση b. διαταγή c. ερώτηση d. έκπληξη
e. παράκληση

ΠΡΟΤΑΣΗ 12: She spen˦t a hundred ˦pounds

a. συναισθηματική φόρτηση /έκπληξη b. κατάφατικη πρόταση χωρίς φανερή συναισθηματική φόρτηση c. διαταγή
d. ερώτηση

ΠΡΟΤΑΣΗ 13: They're also doing lin˦guistics

a. κατάφαση b. έκπληξη c. διαταγή d. επιφύλαξη

SUBSECTION 2

ΥΠΟΔΕΙΞΕΙΣ: ΔΙΑΒΑΣΤΕ ΤΙΣ ΑΚΟΛΟΥΘΕΣ ΠΡΟΤΑΣΕΙΣ ΠΡΟΣΕΧΤΙΚΑ ΓΙΑ ΠΕΝΤΕ ΛΕΠΤΑ. ΜΕΤΑ ΑΚΟΥΣΤΕ ΤΙΣ ΙΔΙΕΣ ΠΡΟΤΑΣΕΙΣ ΕΤΣΙ ΟΠΩΣ ΔΙΑΒΑΖΟΝΤΑΙ ΑΠΟ ΤΟΝ ΟΜΙΛΗΤΗ. ΟΙ ΠΡΟΤΑΣΕΙΣ ΕΙΝΑΙ ΑΠΟΛΥΤΑ ΟΜΟΙΕΣ ΛΕΞΙΛΟΓΙΚΑ ΚΑΙ ΣΥΝΤΑΚΤΙΚΑ ΟΜΩΣ ΤΟ ΝΟΗΜΑ ΤΟΥΣ ΘΕΩΡΗΤΙΚΑ ΔΙΑΦΕΡΕΙ ΑΝΑΛΟΓΑ ΜΕ ΤΟΝ ΤΡΟΠΟ ΔΙΑΒΑΣΜΑΤΟΣ ΤΟΥΣ. ΑΝ ΝΟΜΙΖΕΤΕ ΠΩΣ ΤΟ ΕΚΑΣΤΟΤΕ ΖΕΥΓΟΣ ΠΡΟΤΑΣΕΩΝ ΔΙΑΦΕΡΕΙ ΣΗΜΑΣΙΟΛΟΓΙΚΑ ΣΗΜΕΙΩΣΤΕ ΣΤΟ ΚΑΘΕ ΚΟΥΤΙ ΤΑ ΓΡΑΜΜΑΤΑ Χ Η Υ. ΑΝ ΚΡΙΝΕΤΕ ΠΩΣ ΟΙ ΕΚΑΣΤΟΤΕ ΠΡΟΤΑΣΕΙΣ ΕΙΝΑΙ ΣΗΜΑΣΙΟΛΟΓΙΚΑ ΟΜΟΙΕΣ ΣΗΜΕΙΩΣΤΕ ΤΟ ΙΔΙΟ ΓΡΑΜΜΑ ΣΤΟ ΣΥΓΚΕΚΡΙΜΕΝΟ ΚΟΥΤΙ.

ΠΡΟΤΑΣΗ 1: a She doesn't talk to ˋanyone
b She doesn't talk to ˇanyone

x: Μιλά μόνο σε ορισμένους
y: Δε μιλά σε κανένα

ΠΡΟΤΑΣΗ 2: a ˋAll the children didn't ˏsleep
b All the children didn't ˋsleep

x: Μόνο ενας ορισμένος αριθμός παιδιών κοιμήθηκε
y: Κανένα παιδί δεν κοιμήθηκε

ΠΡΟΤΑΣΗ 3: a I `thought she was ´married

b I ˇthought she was married

x: Και είχα δίκαιο, ήταν

y. Αλλά αποδείχτηκε πως δεν ήταν

ΠΡΟΤΑΣΗ 4: a She is our new `Spanish teacher

b She is our new Spanish `teacher

x: Είναι η καινούργια μας δασκάλα που διδάσκει Ισπανικά

y: Ειναι η καινουργια μας Ισπανίδα δάσκαλα

APPENDIX VI: THE ENGLISH DATA (NES)

SUBSECTION 1

DIRECTIONS: READ THE FOLLOWING SENTENCES CAREFULLY FOR FIVE MINUTES. THEN LISTEN TO THE SAME SENTENCES AS THEY ARE READ FROM THE NES IN THE TAPE RECORDER. EACH SENTENCE WILL BE REPEATED FIVE TIMES WITH AN INTERVAL OF 2''. AT THE END OF REPETITION OF EACH SENTENCE AND BEFORE THE NEW SENTENCE IS PRODUCED AN INTERVAL OF 5'' IS ALLOWED. NEXT TO EACH SENTENCE A BLANK BOX IS INCLUDED AND BELOW EACH SENTENCE VARIOUS GRAMMATICAL TERMS ARE GIVEN PRECEDED BY SPECIFIC LETTERS OF THE ALPHABET. AS SOON AS YOU DECIDE WHICH GRAMMATICAL TERM REFERS TO EACH SENTENCE PLACE THE SPECIFIC LETTER OF THE ALPHABET IN THE APPROPRIATE BOX

SENTENCE 1: They were born in ˏManchester

a. question b. statement with no obvious emotional tension c. surprise d and c

SENTENCE 2: They were ˎfive

a. statement with no obvious emotional tension
b. surprise c. question d. negative statement e. b and c

SENTENCE 3: They were ^five

a. statement with no obvious degree of emotional tension b. statement with a certain degree of emotional tension c. question d. request

SENTENCE 4: You have to ˇdo it (but)...

a. statement b. warning c. command d. question e. reservation

SENTENCE 5: `Don't throw water on the floor

a. question b. request c. command d. statement e. surprise

SENTENCE 6: `Don't use my ,pencil

a. negative statement b. command c. request
d. reservation e. question

SENTENCE 7: Don't forget to in`vite him

a. warning b. negative statement c. question
d. request e. command

SENTENCE 8: You can ↘come (but) ...

a. reservation b. negative statement c. command
d. warning

SENTENCE 9: Not ↘me

a. command b. statement c. warning d. negative statement e. reservation

SENTENCE 10: Not ↘me

a. question b. negative statement c. warning
d. reservation

SENTENCE 11: Be↘have your,self

a. statement b. command c. question d. surprise
e. request

SENTENCE 12: She spend a hundred ↘pounds

a. emotional tension/impressed statement b. statement with no obvious emotional tension c. command
d. question

SENTENCE 13: They're also doing lin`guistics

a. statement b. impressed statement c. command
e. reservation

SUBSECTION 2

DIRECTIONS: READ THE FOLLOWING SENTENCE PAIRS CAREFULLY FOR FIVE MINUTES. THEN LISTEN TO THE SAME SENTENCES AS THEY ARE READ FROM THE NES. THE SENTENCES OF EACH PAIR ARE LEXICALLY AND SYNTACTICALLY IDENTICAL. NEVERTHELESS, THEY ARE SUPPOSED TO CONVEY A DIFFERENT MEANING ACCORDING TO THE WAY THEY ARE PRODUCED. IF YOU THINK THAT THE SENTENCES OF EACH PAIR CARRY A DIFFERENT MEANING FILL EACH BOX WITH THE LETTERS X OR Y. ALTERNATIVELY, IF YOU CONSIDER BOTH SENTENCES OF THE PAIRS SEMANTICALLY SIMILAR FILL THE APPROPRIATE BOXES WITH THE SAME LETTER

SENTENCE 1: a She doesn't talk to `anyone
b She doen't talk to `anyone

x: She talks to some people only
y: She talks to no person at all

SENTENCE 2: a \All the children didn't /sleep

b All the children didn't \sleep

x: Only a number of children slept

y: No child slept

SENTENCE 3: a I \ thought she was /married

b I \/thought she was married

x: and I was right, she was

y: but it turned out she wasn't

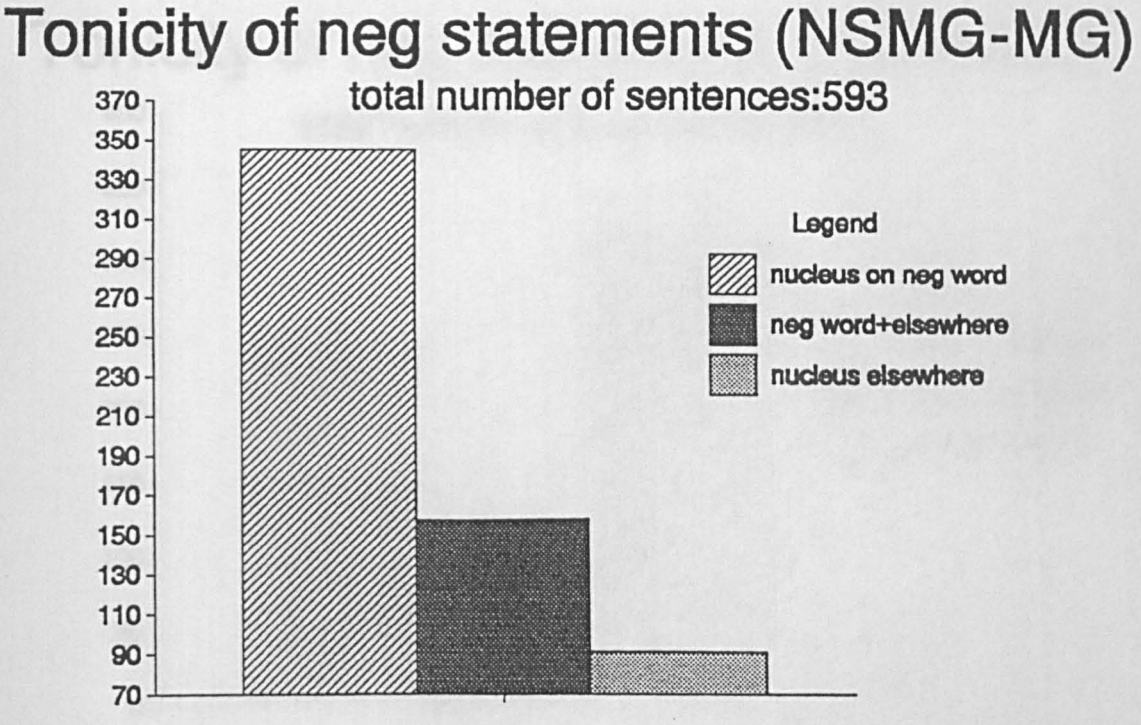
SENTENCE 4: a She is our new \Spanish teacher

b She is our new Spanish \teacher

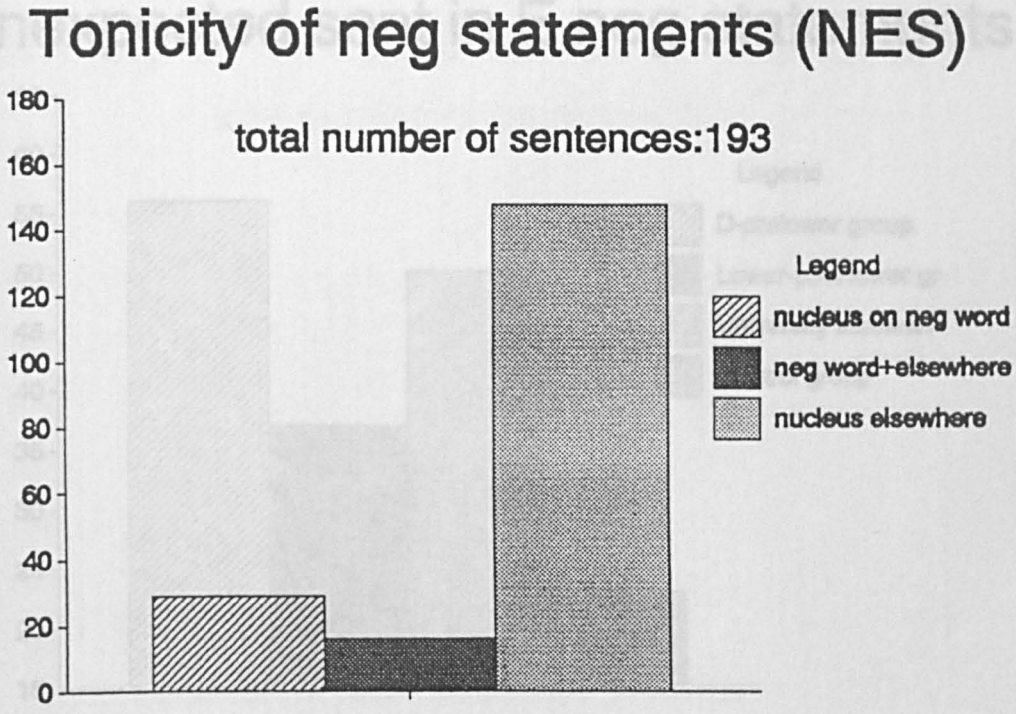
x: She is our new teacher who teaches Spanish

y: She is our new teacher who is Spanish

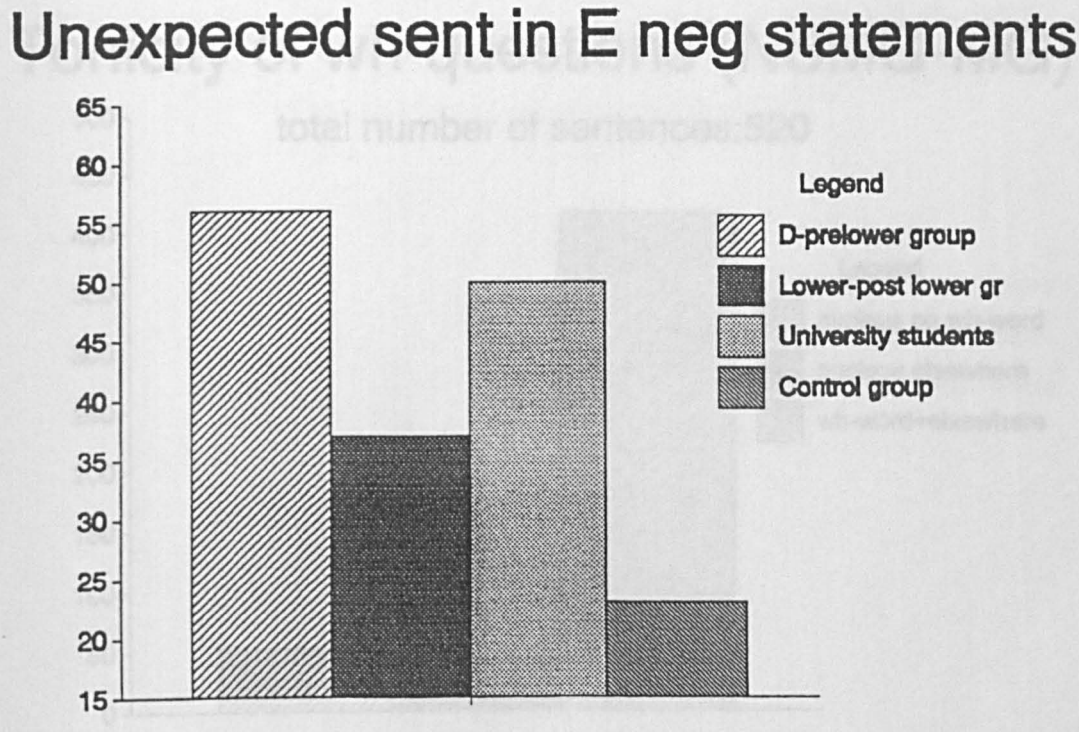
GRAPHS


Tonicity of neg statements (NSMG-MG)
total number of sentences:593
370
350
330
310
290
270
250
230
210
190
170
150
130
110
90
70
Legend
nucleus on neg word
neg word+elsewhere
nucleus elsewhere

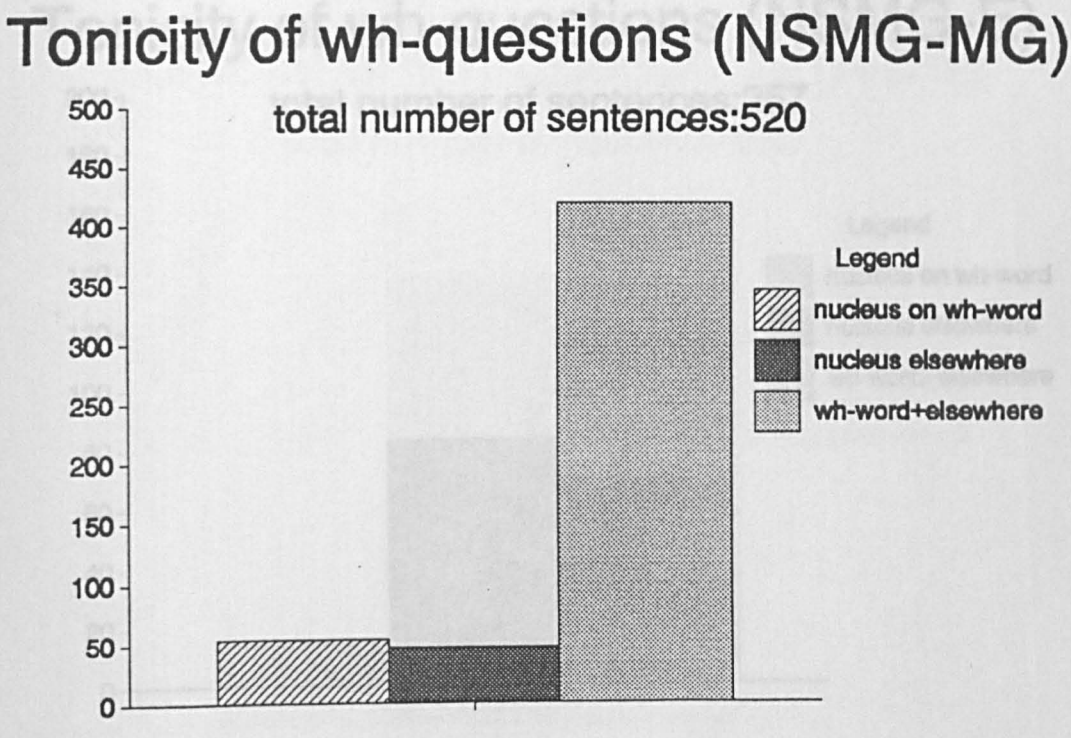
Graph 1


Tonicity of neg statements (NES)
total number of sentences:193
180
160
140
120
100
80
60
40
20
0
Legend
nucleus on neg word
neg word+elsewhere
nucleus elsewhere

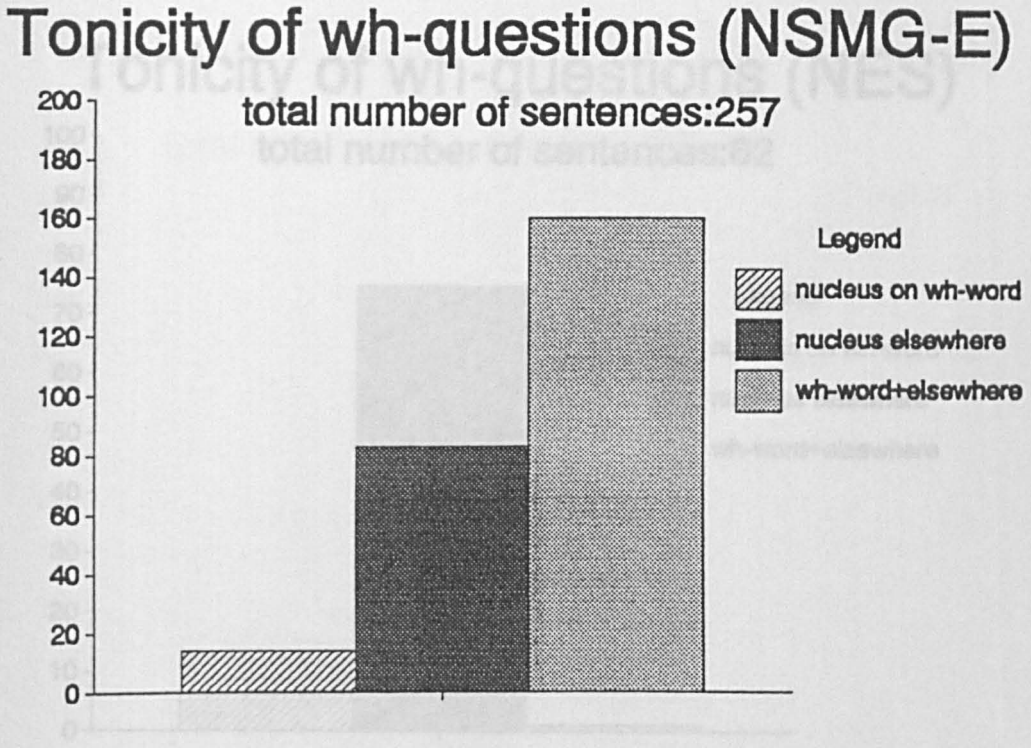
Graph 3


Unexpected sent in E neg statements
65
60
55
50
45
40
35
30
25
20
15
Legend
D-prelower group
Lower-post lower gr
University students
Control group

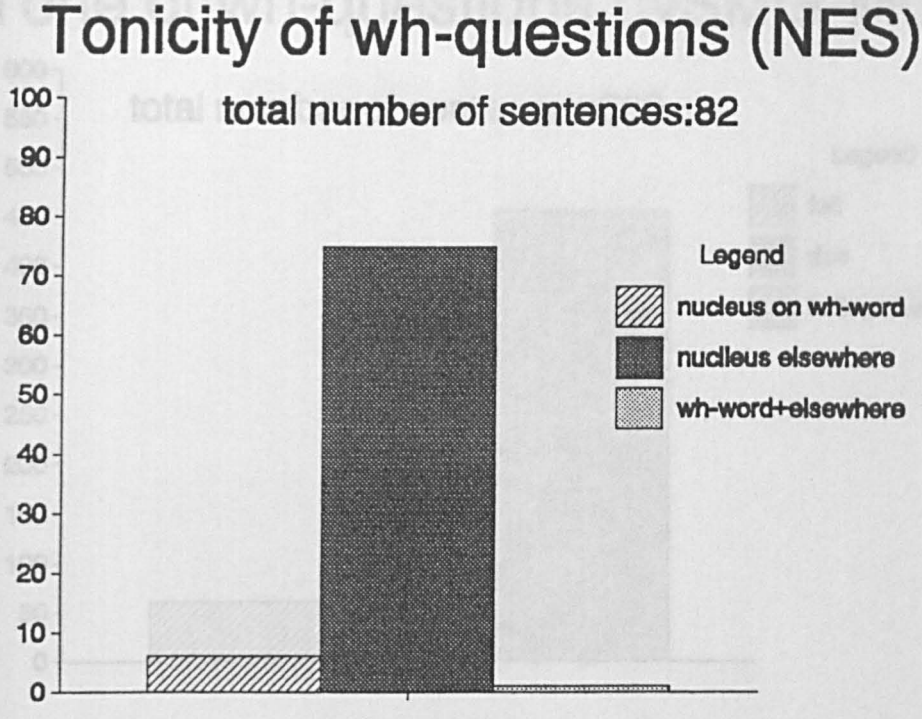
Graph 4


Tonicity of wh-questions (NSMG-MG)
total number of sentences:520
500
450
400
350
300
250
200
150
100
50
0
Legend
nucleus on wh-word
nucleus elsewhere
wh-word+elsewhere

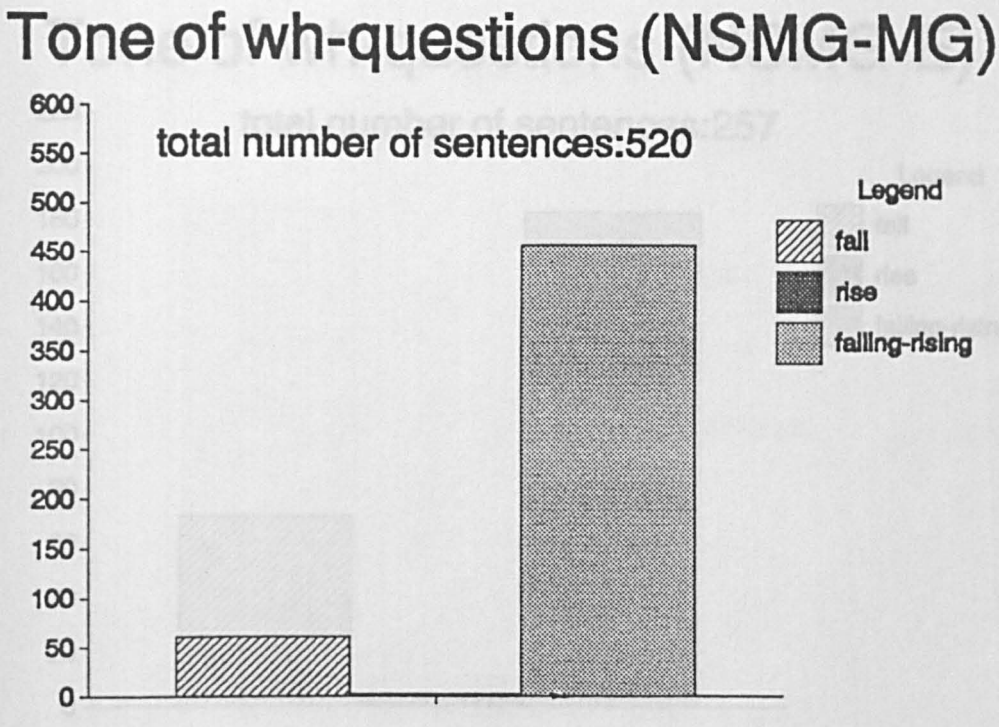
Graph 5


Tonicity of wh-questions (NSMG-E)
total number of sentences:257
200
180
160
140
120
100
80
60
40
20
0
Legend
nucleus on wh-word
nucleus elsewhere
wh-word+elsewhere

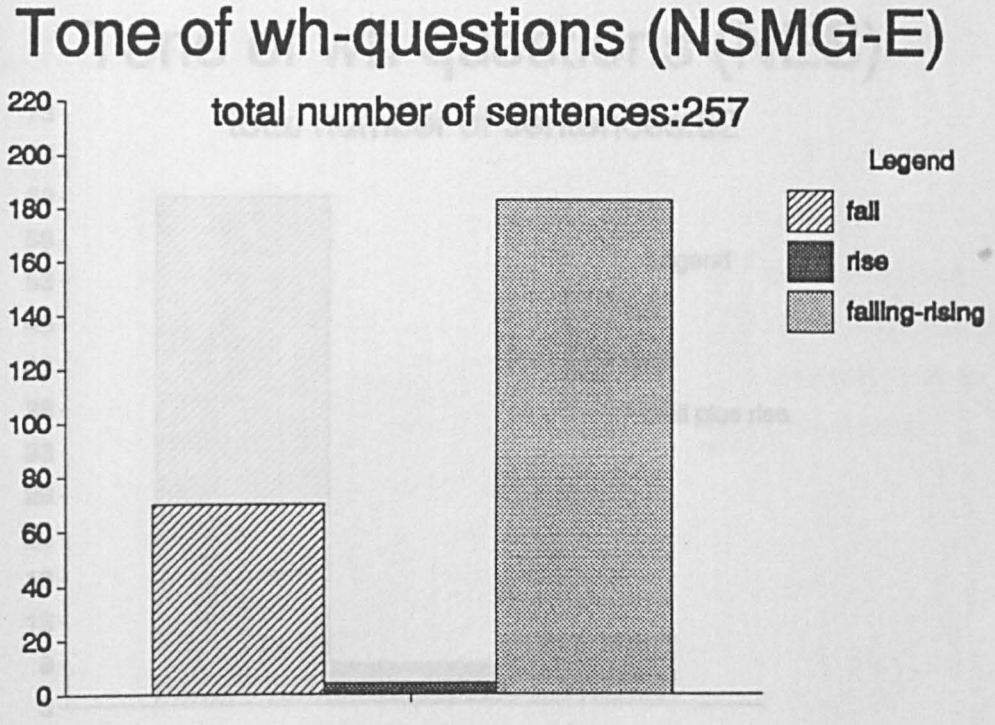
Graph 6


Tonicity of wh-questions (NES)
total number of sentences:82
100
90
80
70
60
50
40
30
20
10
0
Legend
nucleus on wh-word
nucleus elsewhere
wh-word+elsewhere

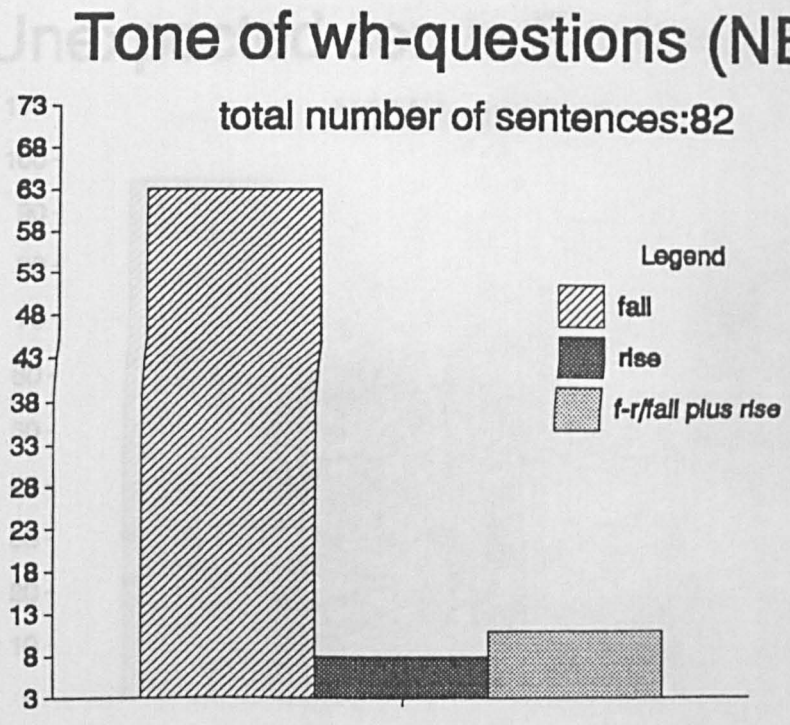
Graph 7


Tone of wh-questions (NSMG-MG)
total number of sentences:520
600
550
500
450
400
350
300
250
200
150
100
50
0
Legend
fall
rise
falling-rising

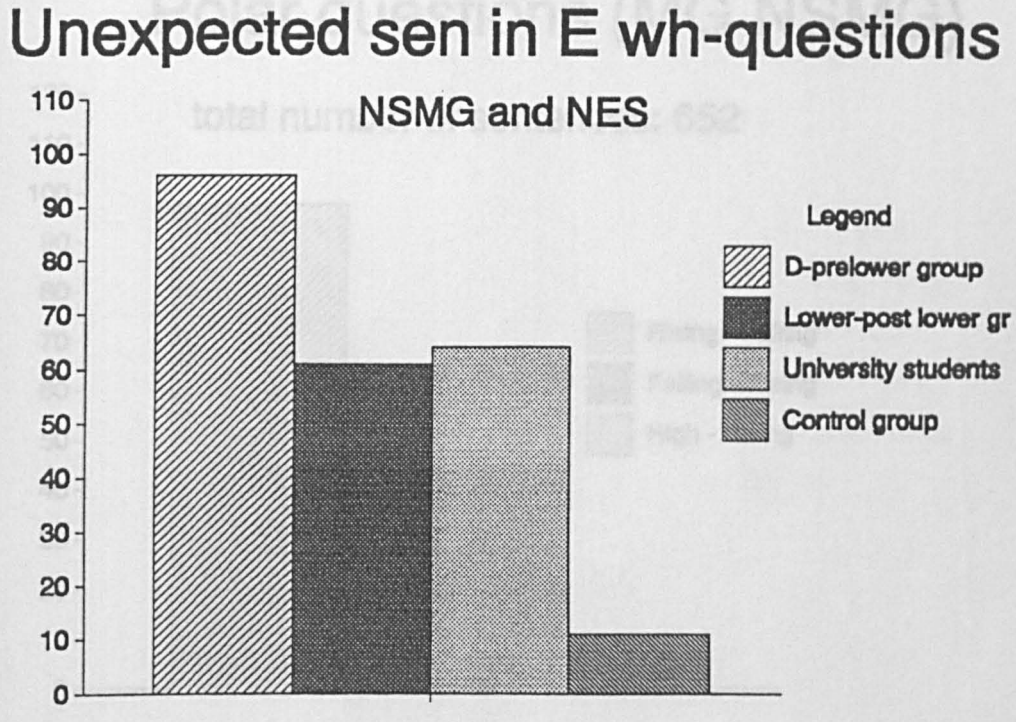
Graph 8


Tone of wh-questions (NSMG-E)
total number of sentences:257
220
200
180
160
140
120
100
80
60
40
20
0
Legend
fall
rise
falling-rising

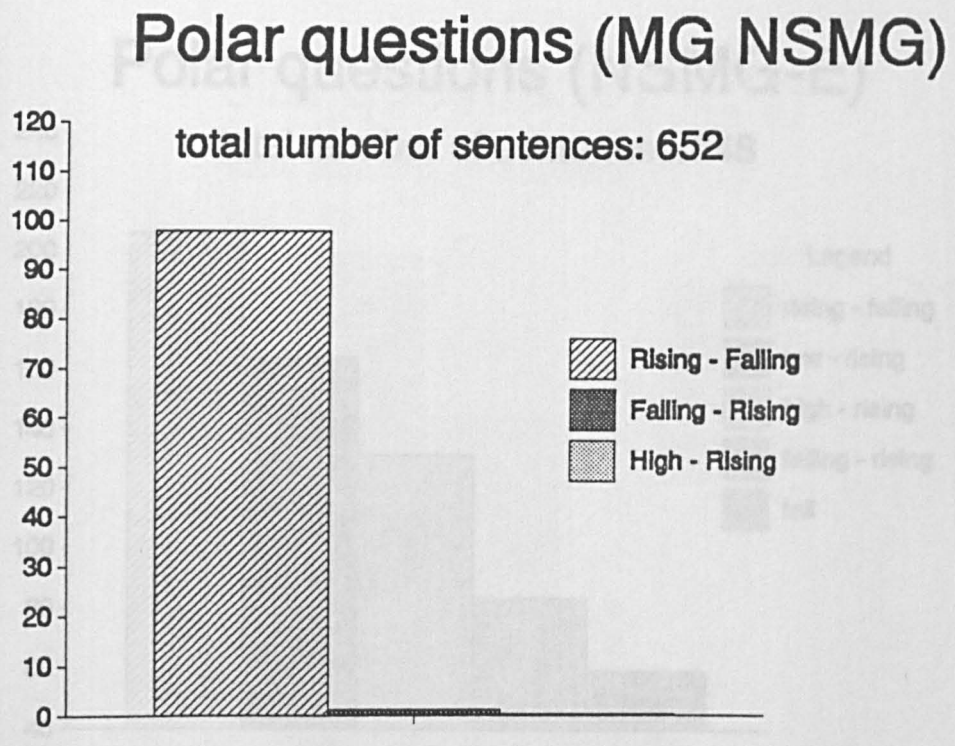
Graph 9


Tone of wh-questions (NES)
total number of sentences:82
73
68
63
58
53
48
43
38
33
28
23
18
13
8
3
Legend
fall
rise
f-r/fall plus rise

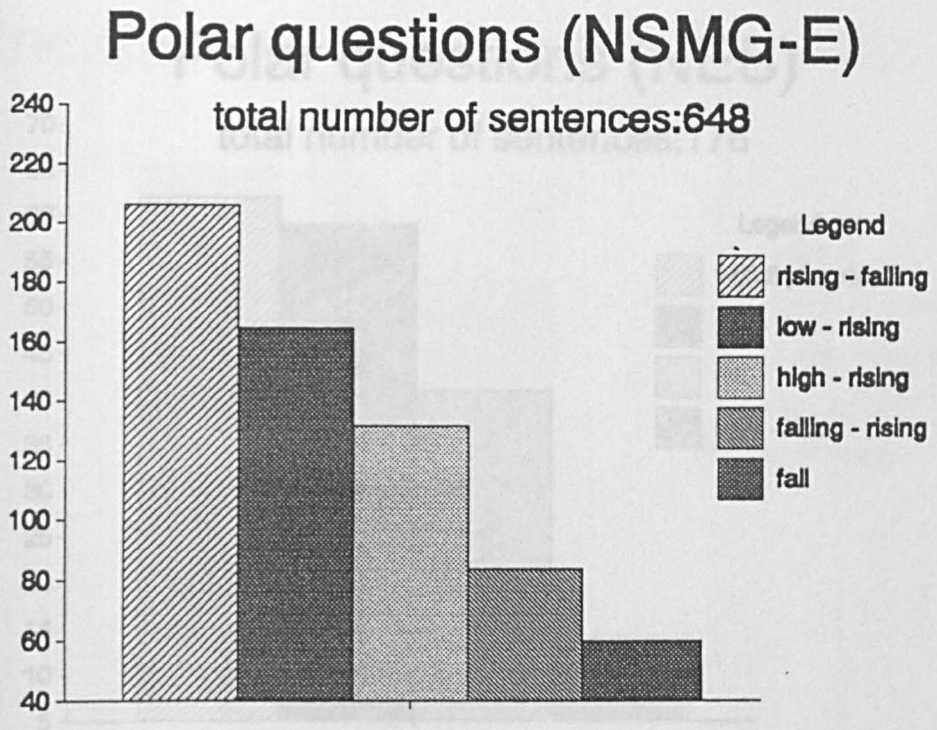
Graph 10


Unexpected sen in E wh-questions
NSMG and NES
110
100
90
80
70
60
50
40
30
20
10
0
Legend
D-prelower group
Lower-post lower gr
University students
Control group

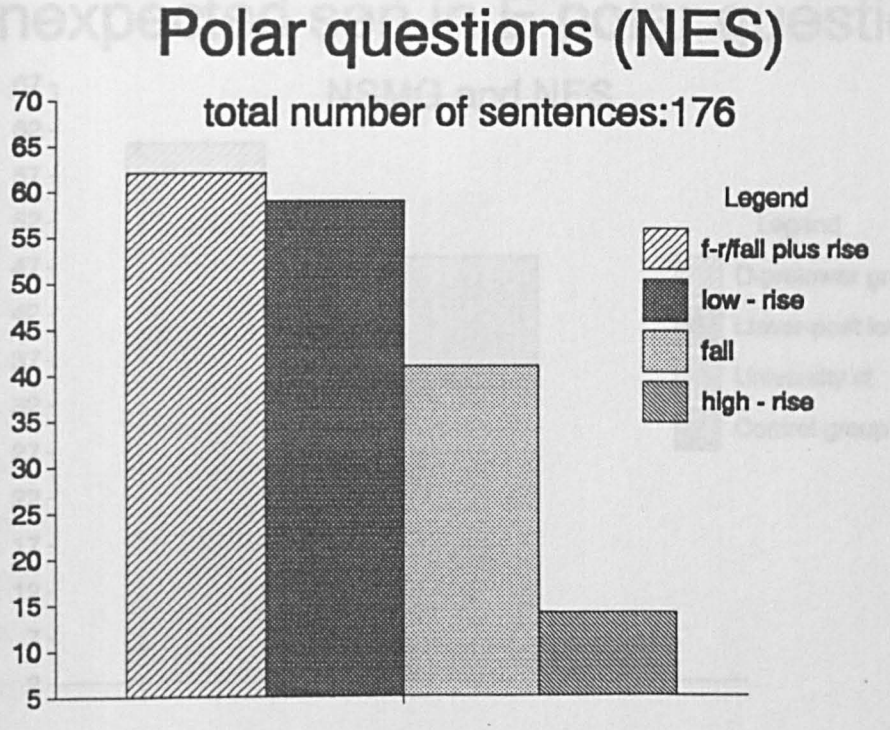
Graph 11


Polar questions (MG NSMG)
total number of sentences: 652
120
110
100
90
80
70
60
50
40
30
20
10
0
Rising - Falling
Falling - Rising
High - Rising

Graph 12

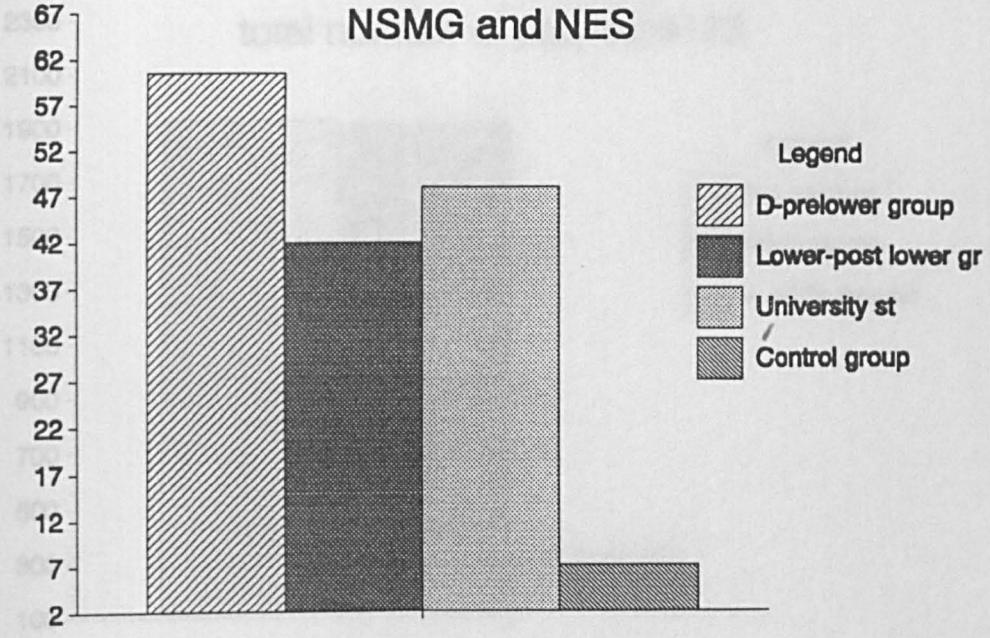

Polar questions (NSMG-E)
total number of sentences:648
240
220
200
180
160
140
120
100
80
60
40
Legend
rising - falling
low - rising
high - rising
falling - rising
fall

Graph 13

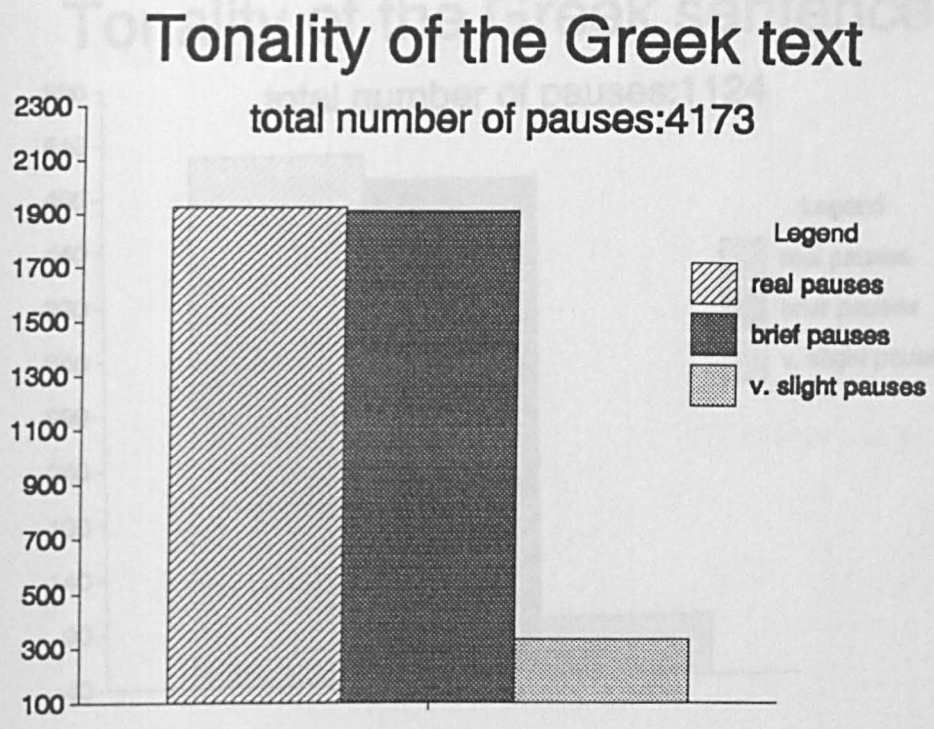

Polar questions (NES)
total number of sentences:176
70
65
60
55
50
45
40
35
30
25
20
15
10
5
Legend
f-r/fall plus rise
low - rise
fall
high - rise

Graph 14

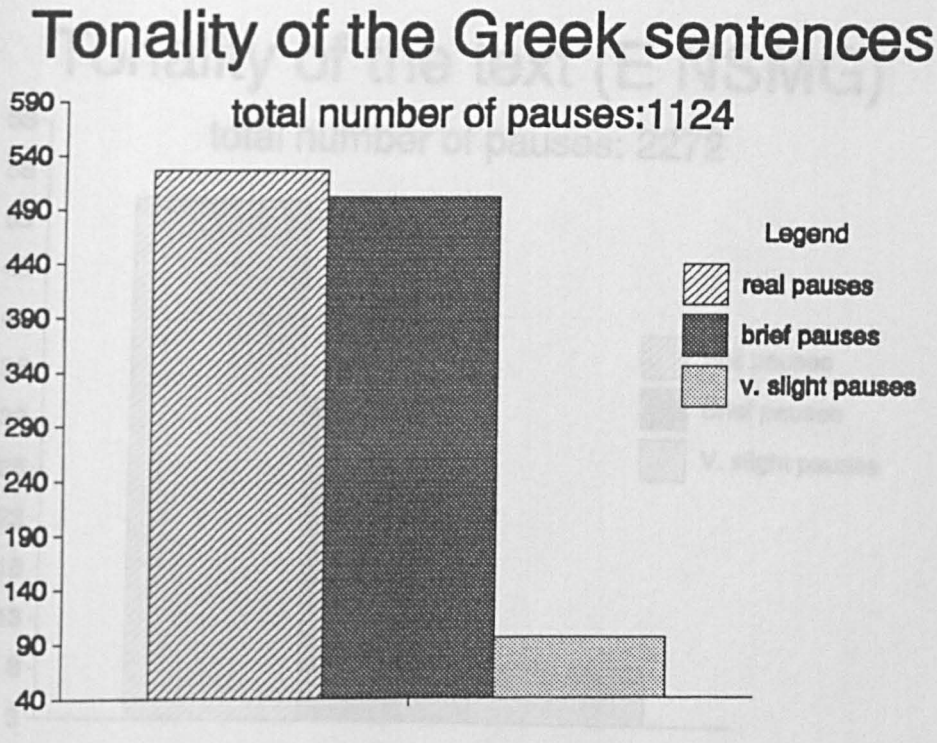
Unexpected sen in E polar questions



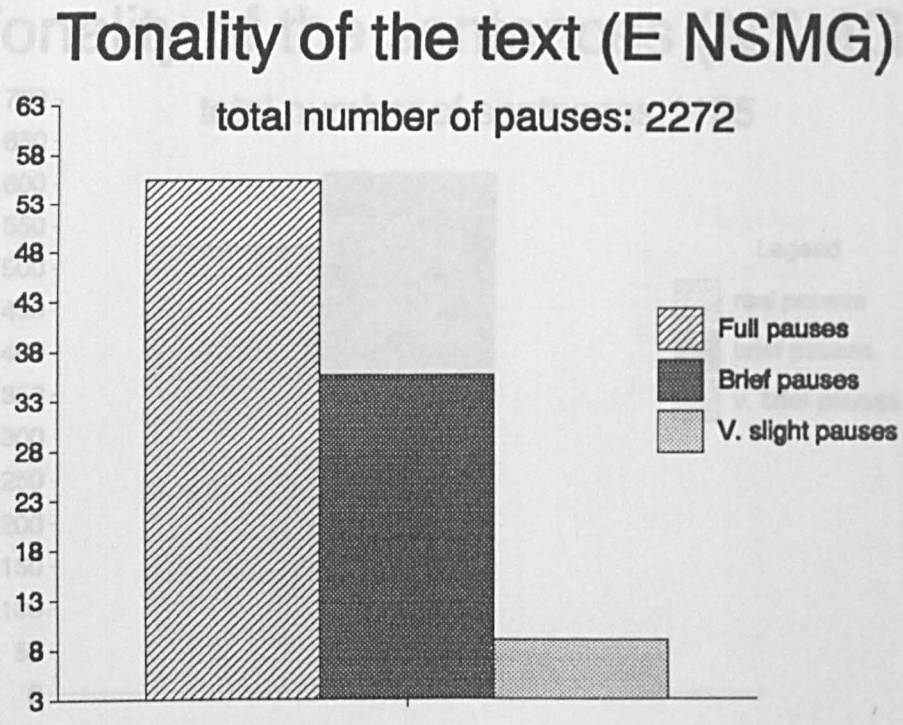
Graph 15


Tonality of the Greek text
total number of pauses:4173
2300
2100
1900
1700
1500
1300
1100
900
700
500
300
100
Legend
real pauses
brief pauses
v. slight pauses

Graph 16

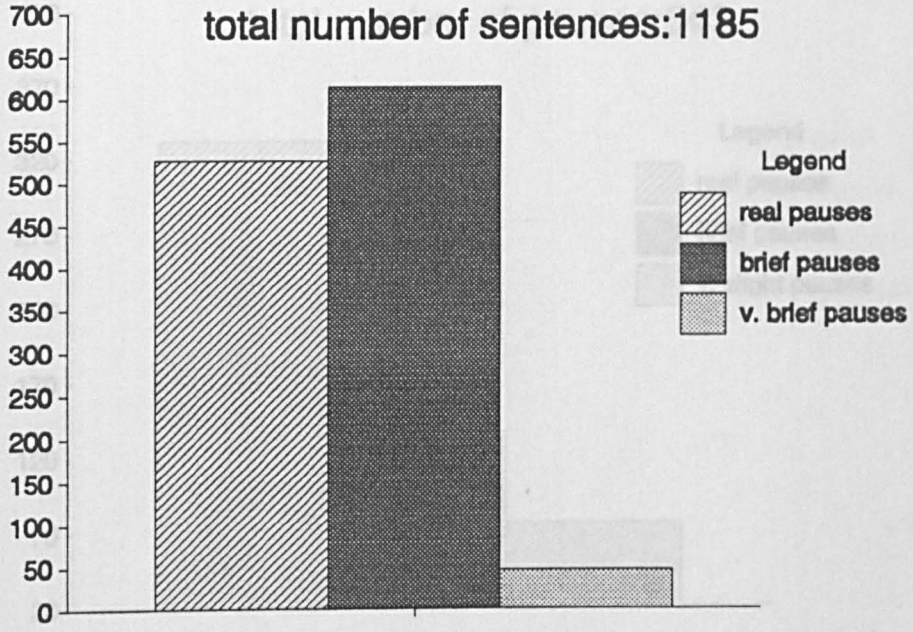

Tonality of the Greek sentences
total number of pauses:1124
590
540
490
440
390
340
290
240
190
140
90
40
Legend
real pauses
brief pauses
v. slight pauses

Graph 17

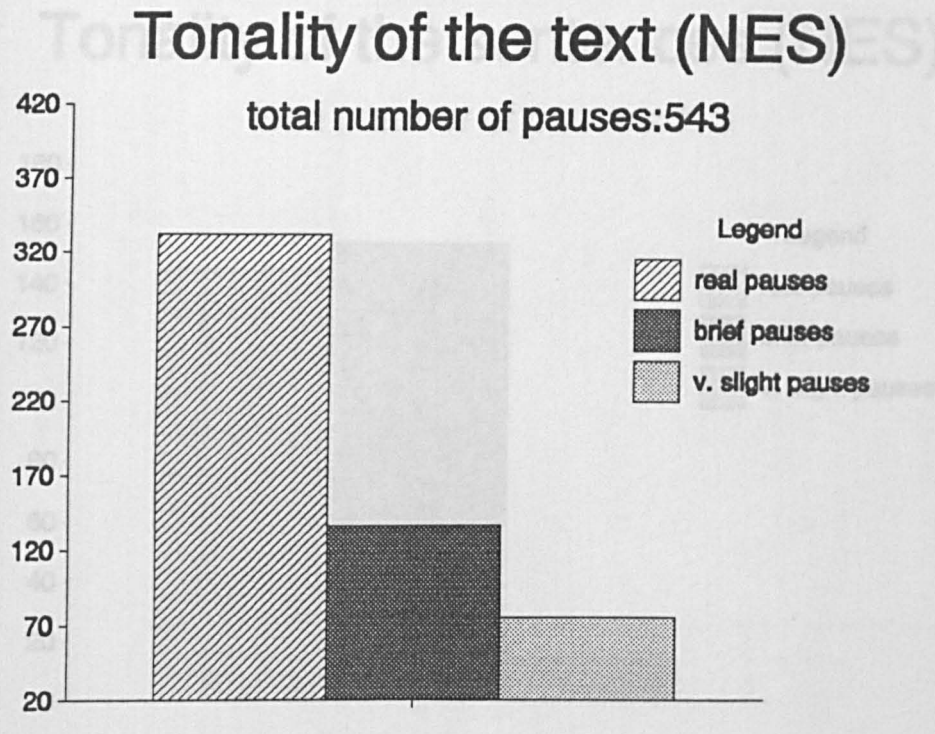

Tonality of the text (E NSMG)
total number of pauses: 2272
63
58
53
48
43
38
33
28
23
18
13
8
3
Full pauses
Brief pauses
V. slight pauses

Graph 18

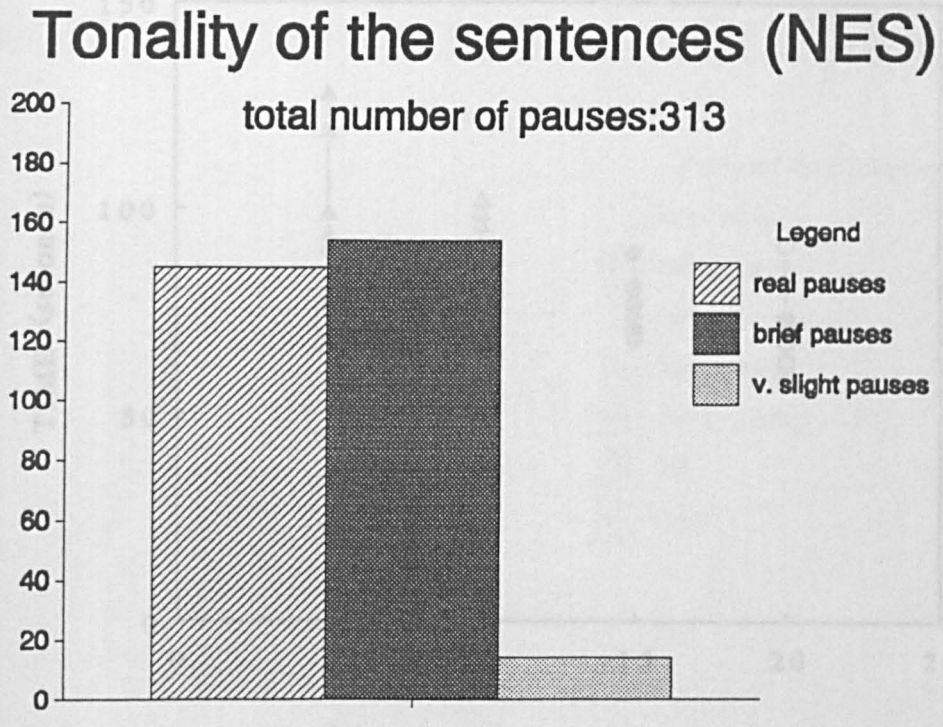
Tonality of the sentences (NSMG-E)



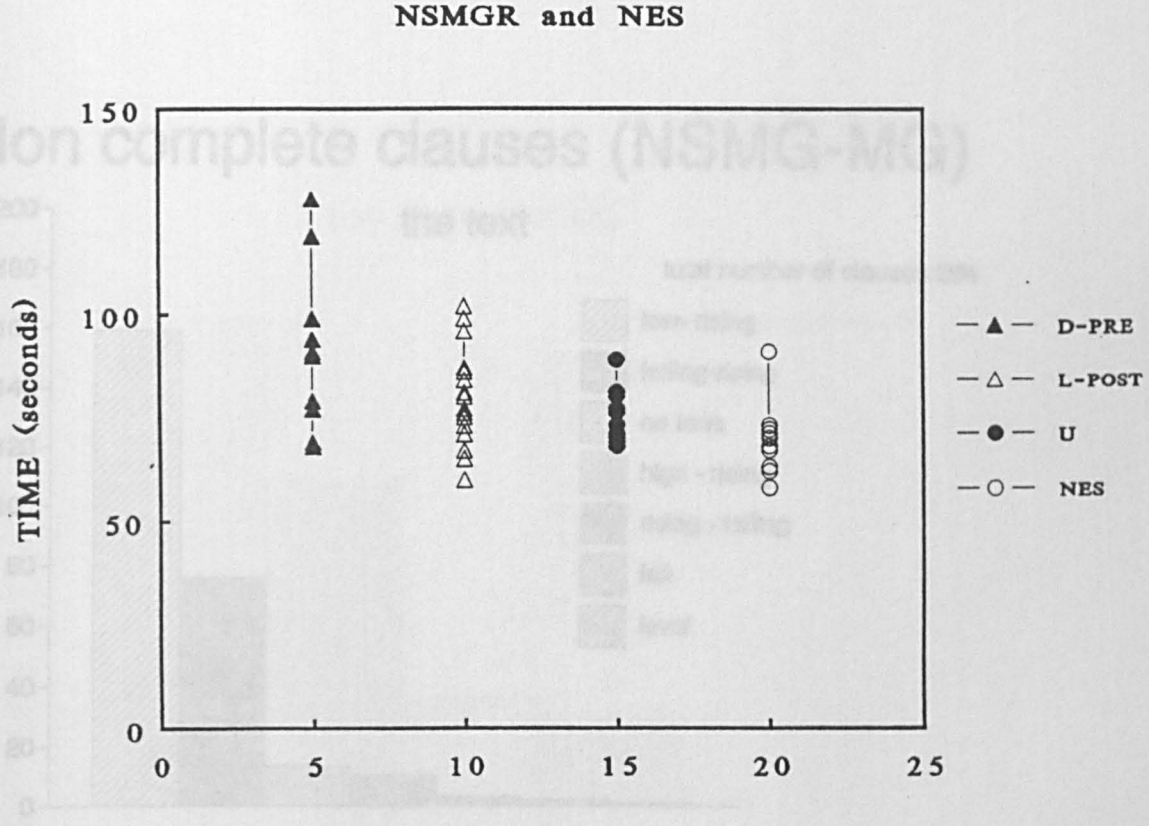
Graph 19


Tonality of the text (NES)
total number of pauses:543
420
370
320
270
220
170
120
70
20
Legend
real pauses
brief pauses
v. slight pauses

Graph 20

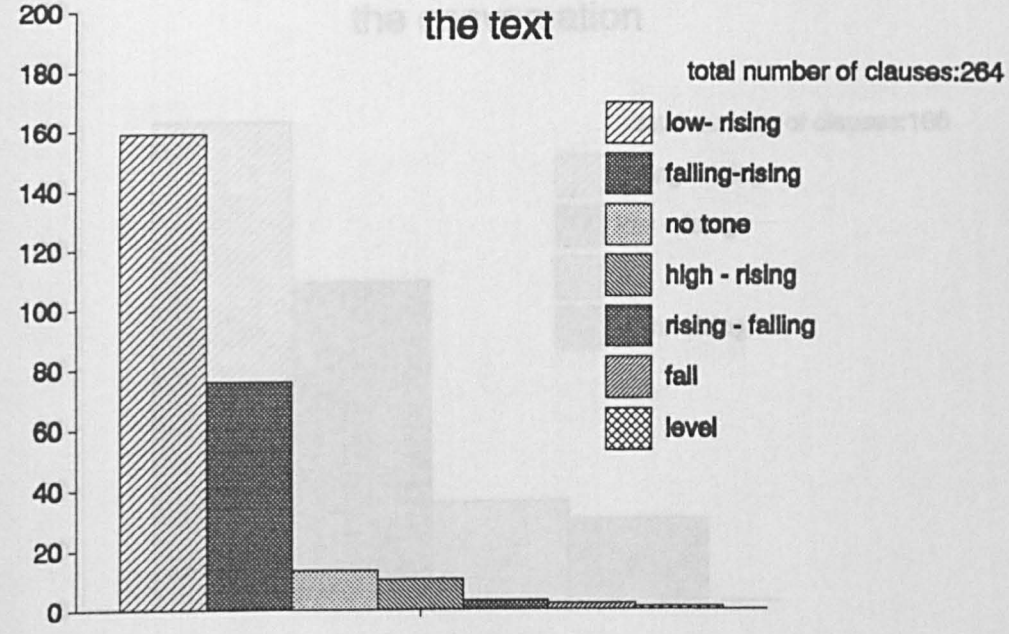

Tonality of the sentences (NES)
total number of pauses:313
200
180
160
140
120
100
80
60
40
20
0
Legend
real pauses
brief pauses
v. slight pauses

Graph 21


NSMGR and NES
150
100
50
0
TIME (seconds)
0
5
10
15
20
25
D-PRE
L-POST
U
NES

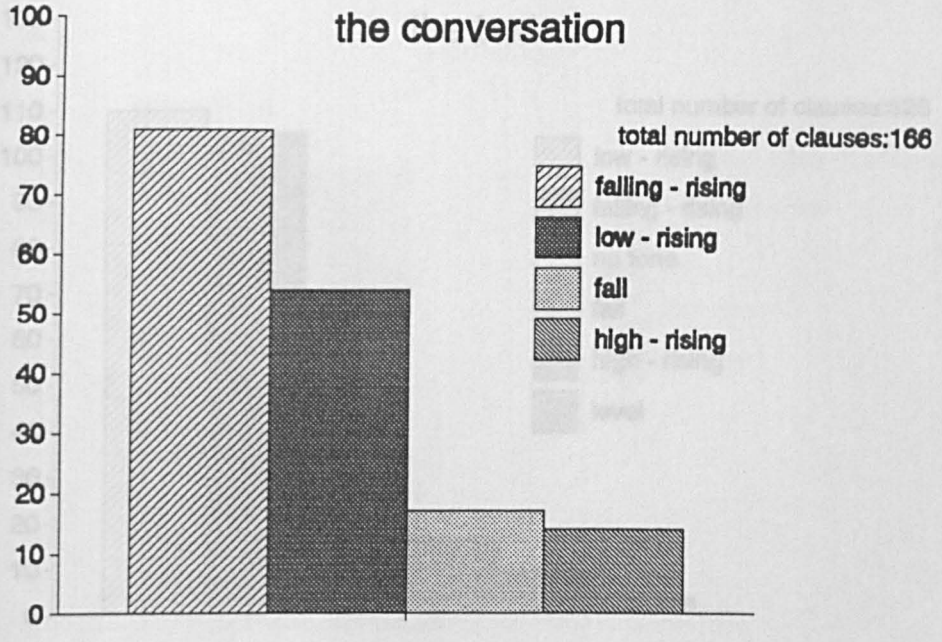
Graph 22

Non complete clauses (NSMG-MG)



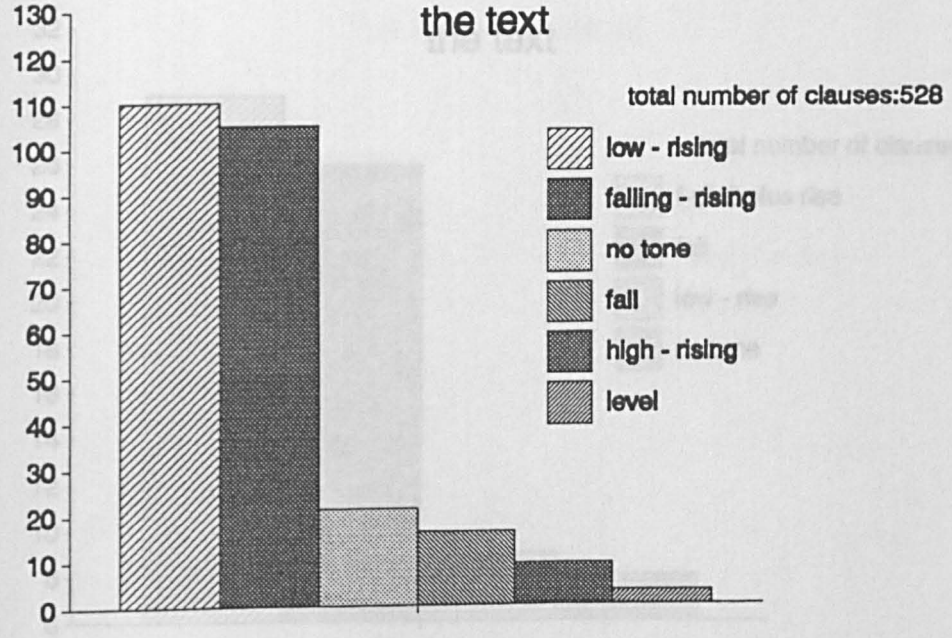
Graph 23

Non complete clauses (NSMG-MG)

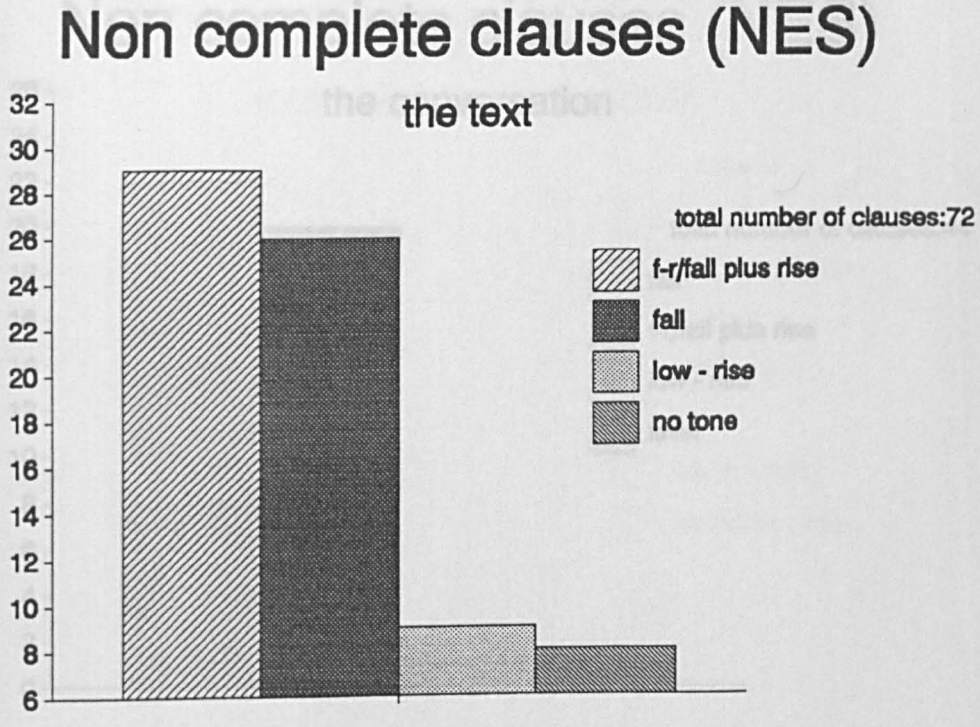


Graph 24

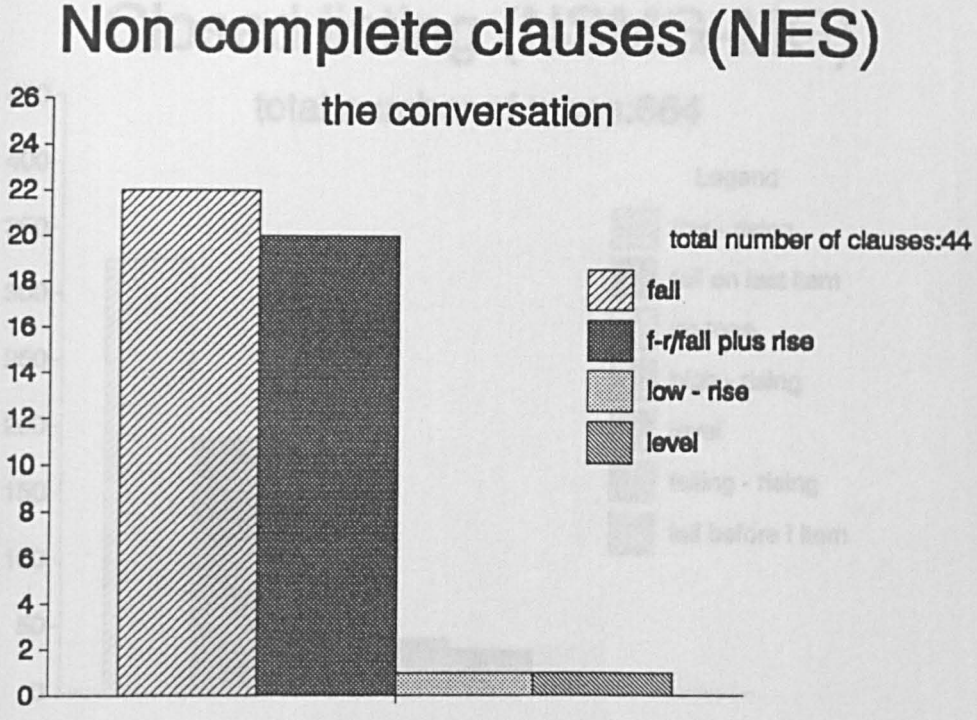
Non complete clauses (NSMG-E)



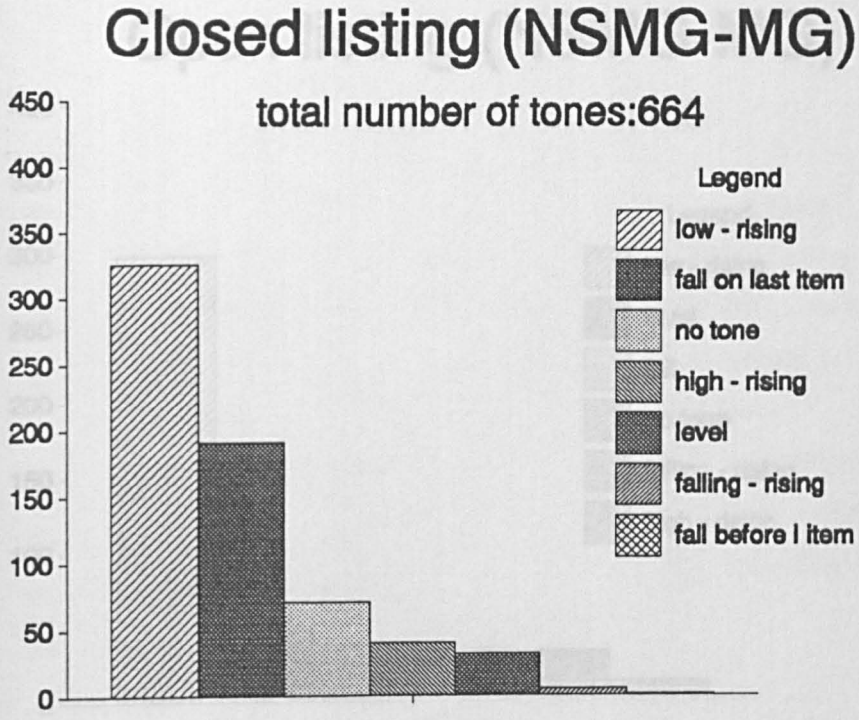
Graph 25


Non complete clauses (NES)
the text
32
30
28
26
24
22
20
18
16
14
12
10
8
6
total number of clauses:72
f-r/fall plus rise
fall
low - rise
no tone

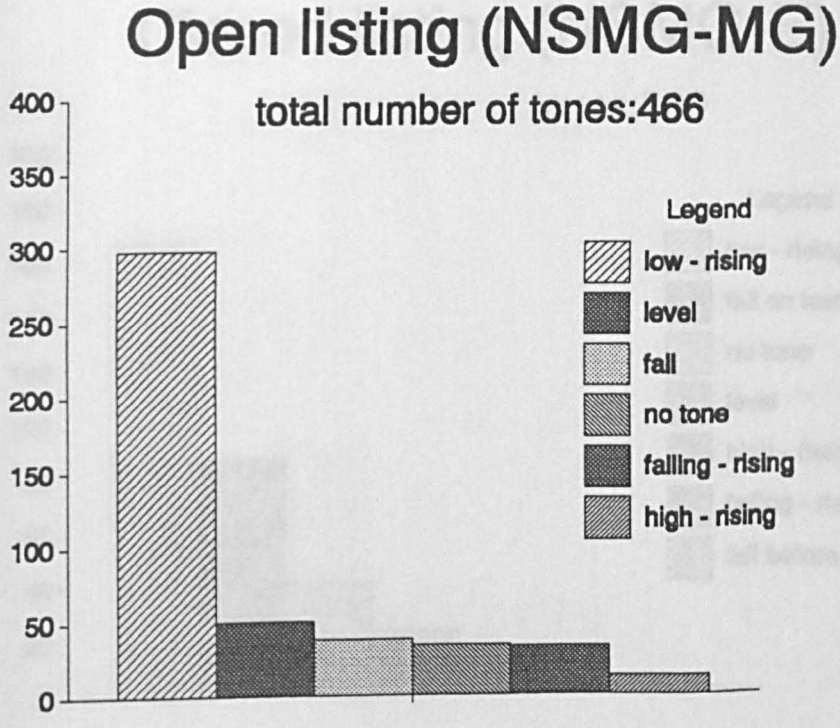
Graph 26


Non complete clauses (NES)
the conversation
26
24
22
20
18
16
14
12
10
8
6
4
2
0
total number of clauses:44
fall
f-r/fall plus rise
low - rise
level

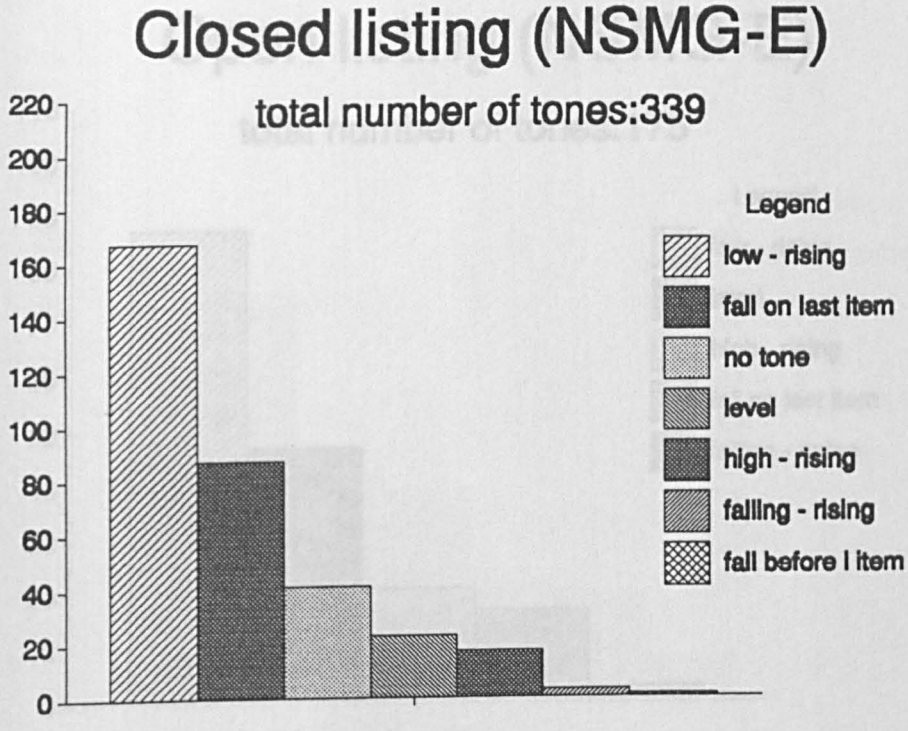
Graph 27


Closed listing (NSMG-MG)
total number of tones:664
450
400
350
300
250
200
150
100
50
0
Legend
low - rising
fall on last item
no tone
high - rising
level
falling - rising
fall before I item

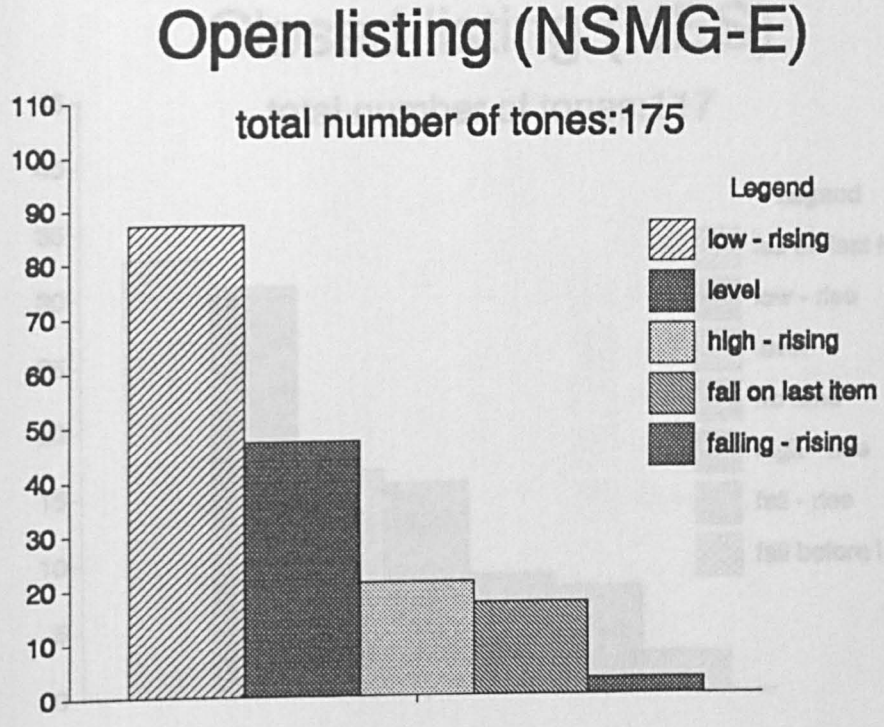
Graph 28


Open listing (NSMG-MG)
total number of tones:466
400
350
300
250
200
150
100
50
0
Legend
low - rising
level
fall
no tone
falling - rising
high - rising

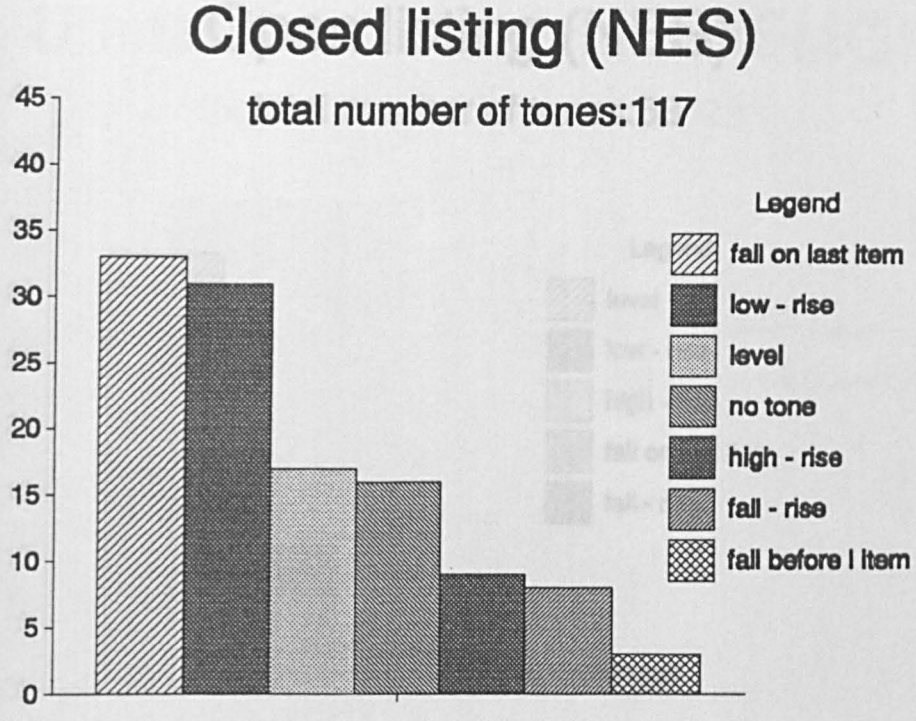
Graph 29


Closed listing (NSMG-E)
total number of tones:339
220
200
180
160
140
120
100
80
60
40
20
0
Legend
low - rising
fall on last item
no tone
level
high - rising
falling - rising
fall before I item

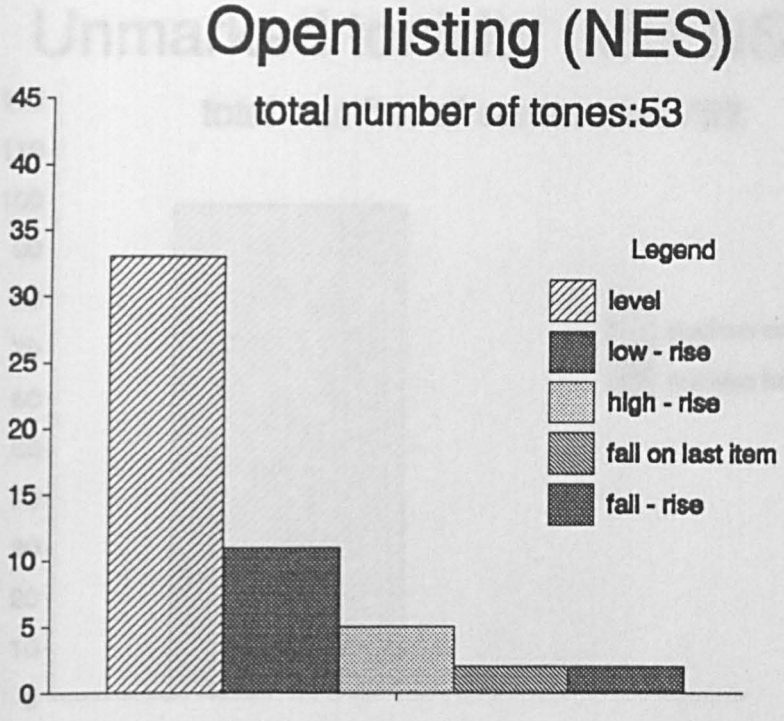
Graph 30


Open listing (NSMG-E)
total number of tones:175
110
100
90
80
70
60
50
40
30
20
10
0
Legend
low - rising
level
high - rising
fall on last item
falling - rising

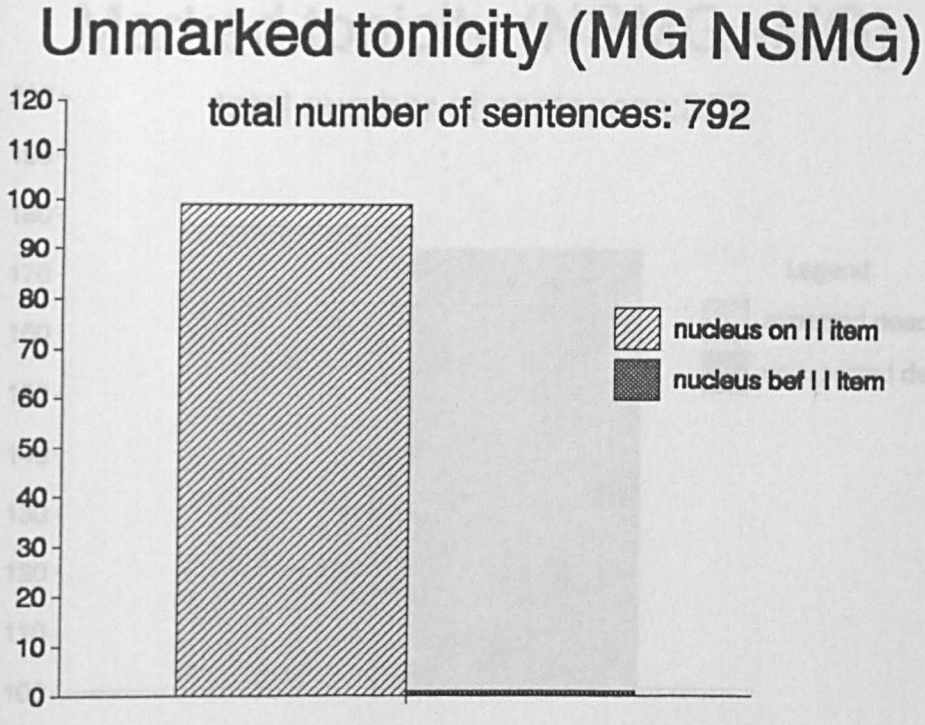
Graph 31


Closed listing (NES)
total number of tones:117
45
40
35
30
25
20
15
10
5
0
Legend
fall on last item
low - rise
level
no tone
high - rise
fall - rise
fall before I item

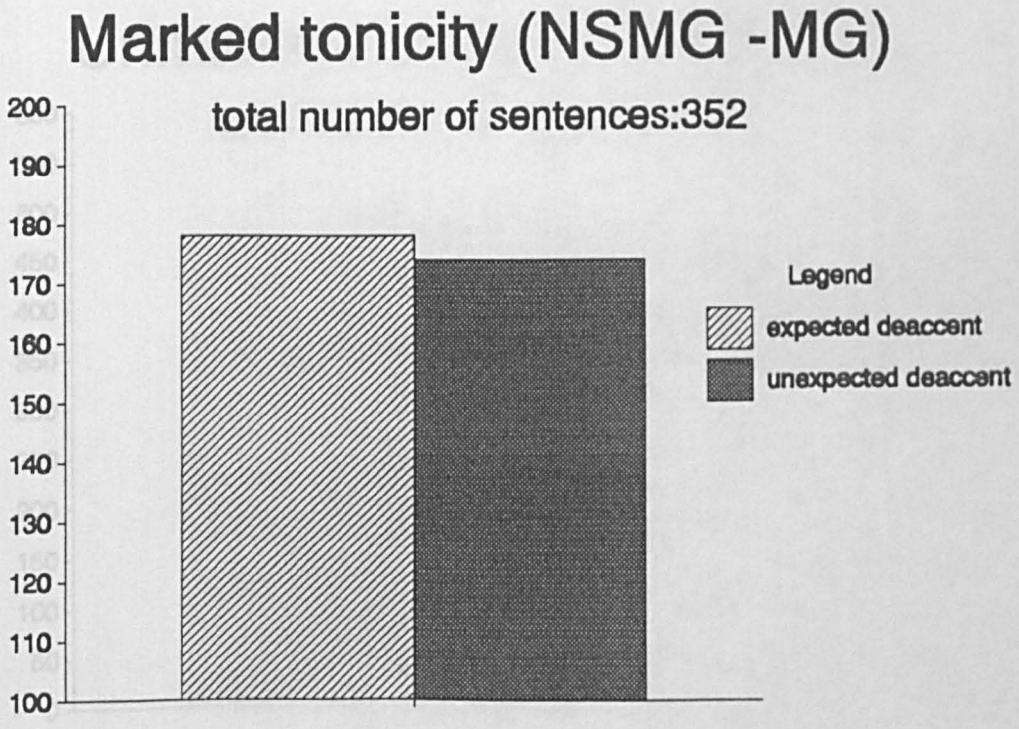
Graph 32


Open listing (NES)
total number of tones:53
45
40
35
30
25
20
15
10
5
0
Legend
level
low - rise
high - rise
fall on last item
fall - rise

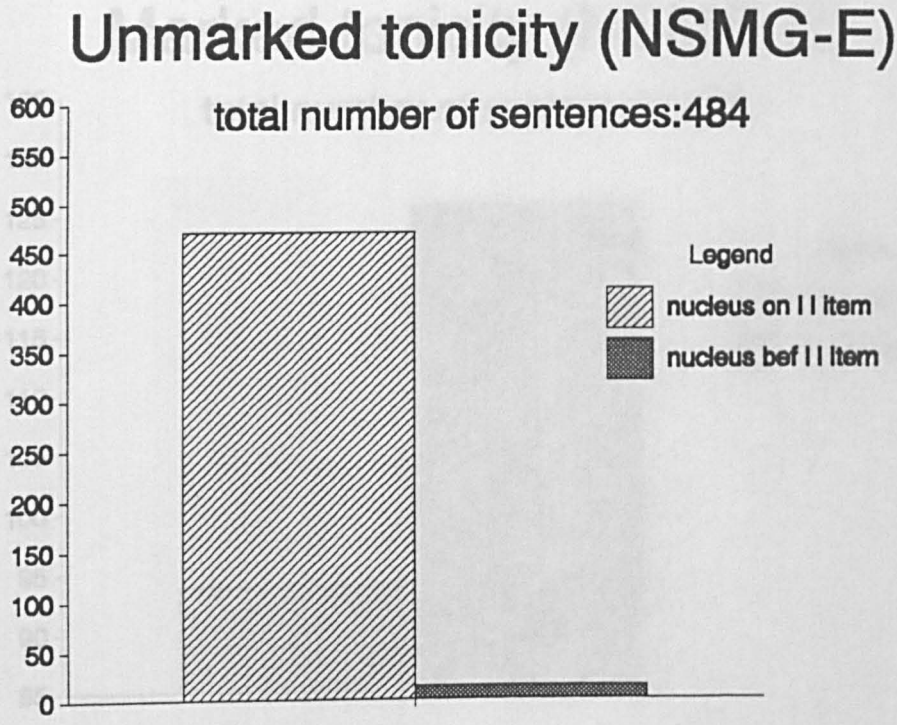
Graph 33


Unmarked tonicity (MG NSMG)
total number of sentences: 792
120
110
100
90
80
70
60
50
40
30
20
10
0
nucleus on I I item
nucleus bef I I item

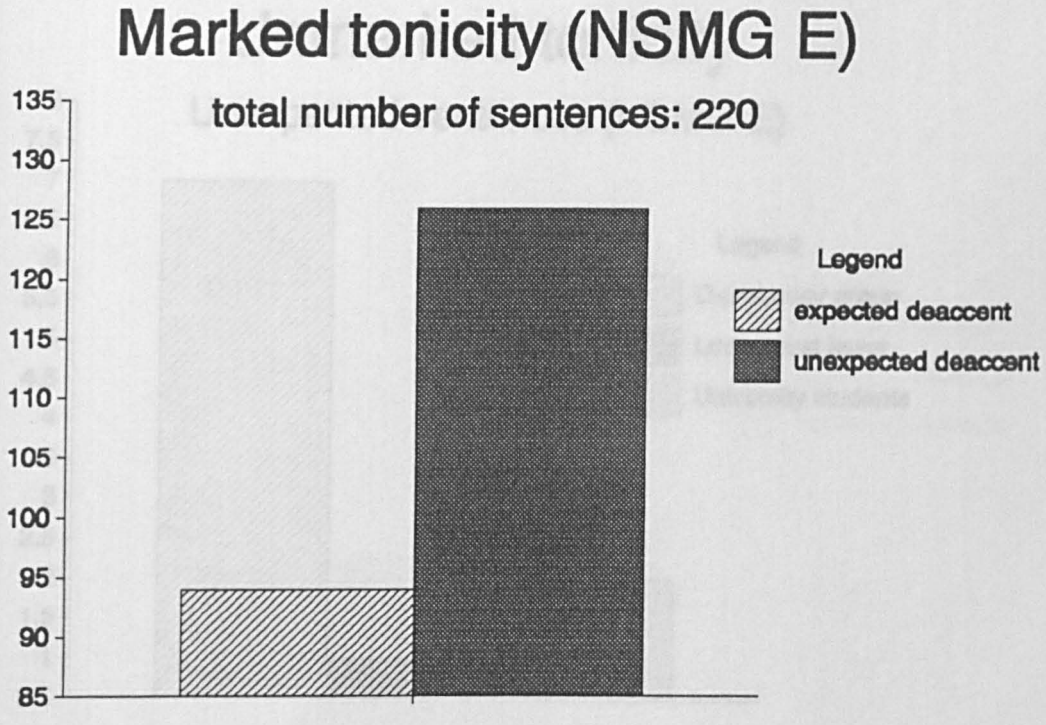
Graph 34


Marked tonicity (NSMG -MG)
total number of sentences:352
200
190
180
170
160
150
140
130
120
110
100
Legend
expected deaccent
unexpected deaccent

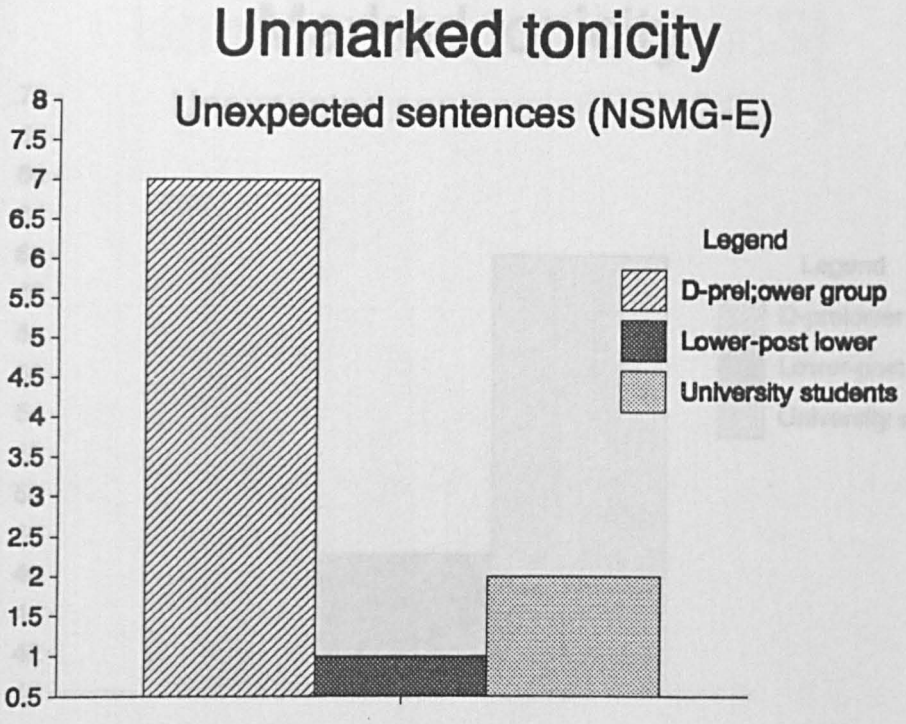
Graph 35


Unmarked tonicity (NSMG-E)
total number of sentences:484
600
550
500
450
400
350
300
250
200
150
100
50
0
Legend
nucleus on I I item
nucleus bef I I item

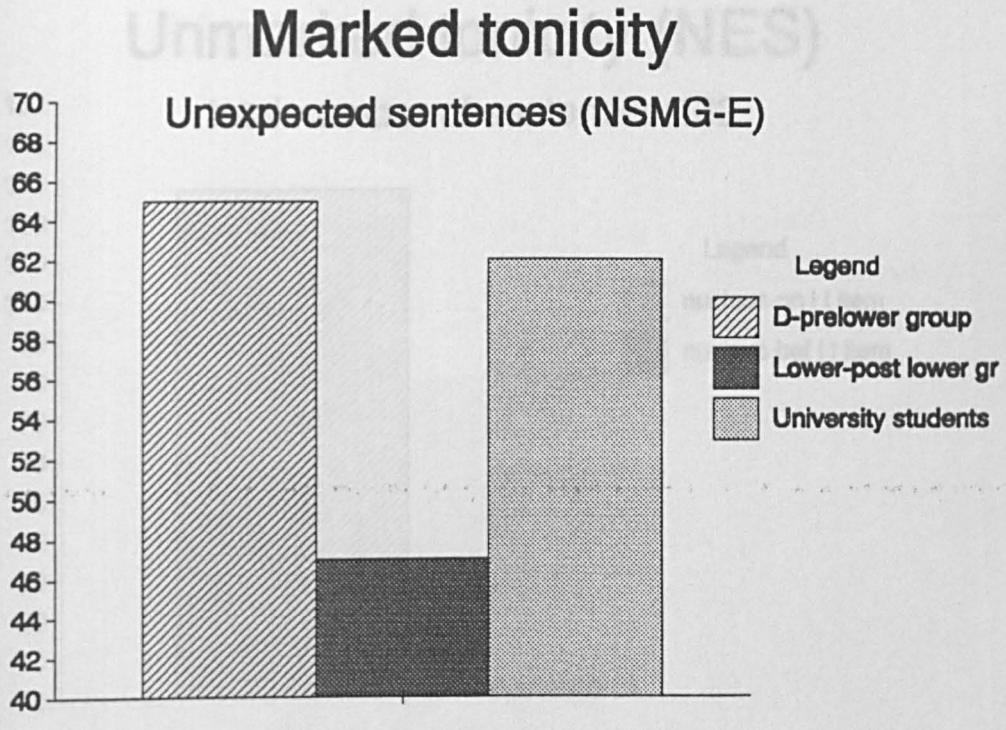
Graph 36


Marked tonicity (NSMG E)
total number of sentences: 220
135
130
125
120
115
110
105
100
95
90
85
Legend
expected deaccent
unexpected deaccent

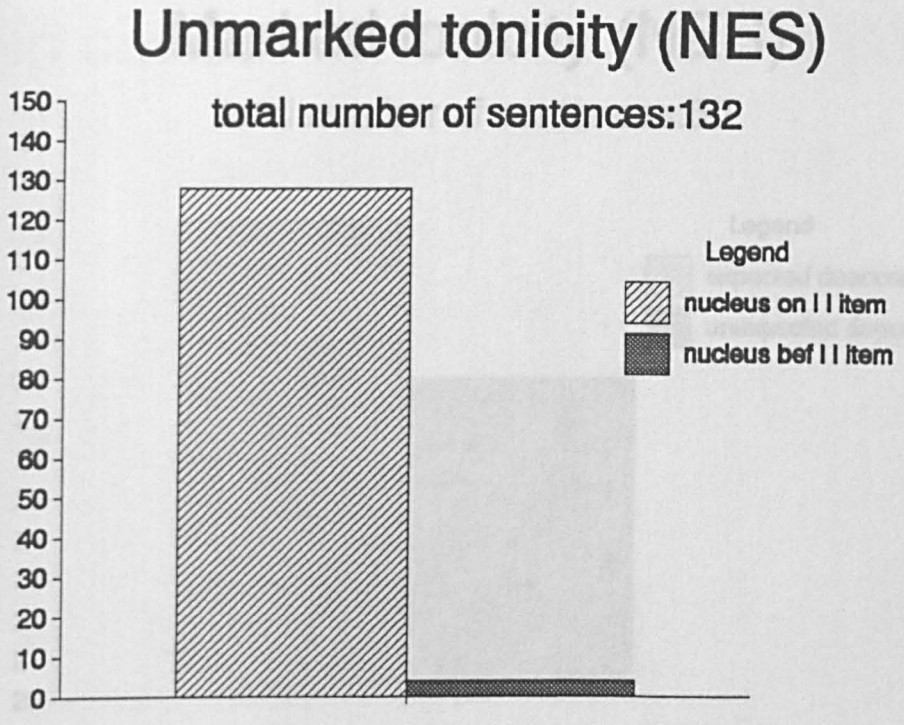
Graph 37


Unmarked tonicity
Unexpected sentences (NSMG-E)
8
7.5
7
6.5
6
5.5
5
4.5
4
3.5
3
2.5
2
1.5
1
0.5
Legend
D-prel;ower group
Lower-post lower
University students

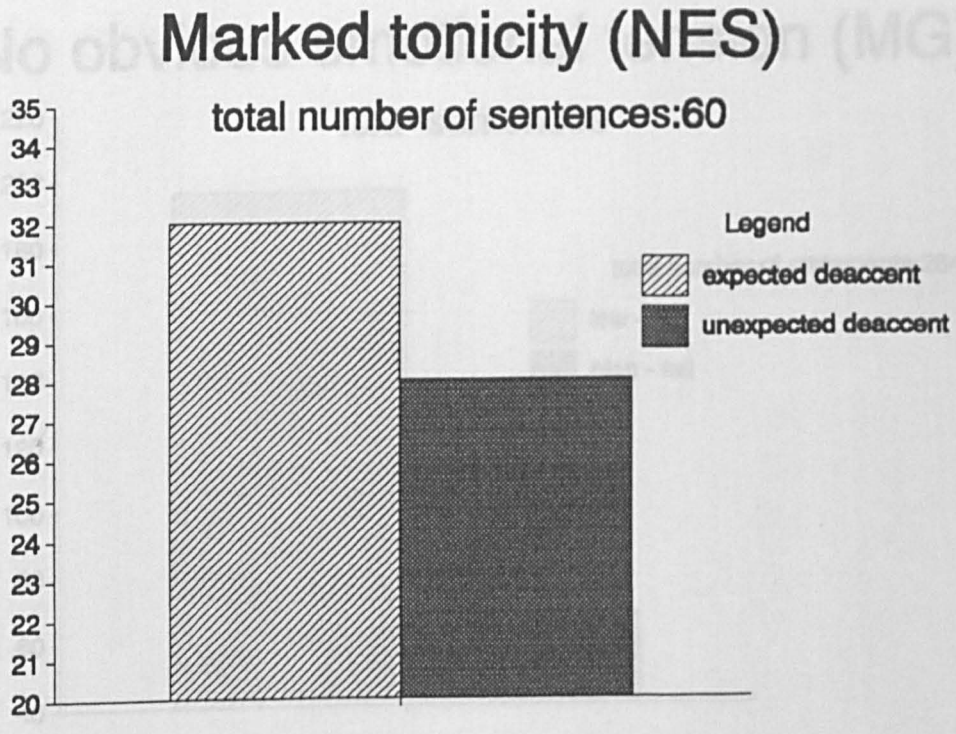
Graph 38


Marked tonicity
Unexpected sentences (NSMG-E)
70
68
66
64
62
60
58
56
54
52
50
48
46
44
42
40
Legend
D-prelower group
Lower-post lower gr
University students

Graph 39

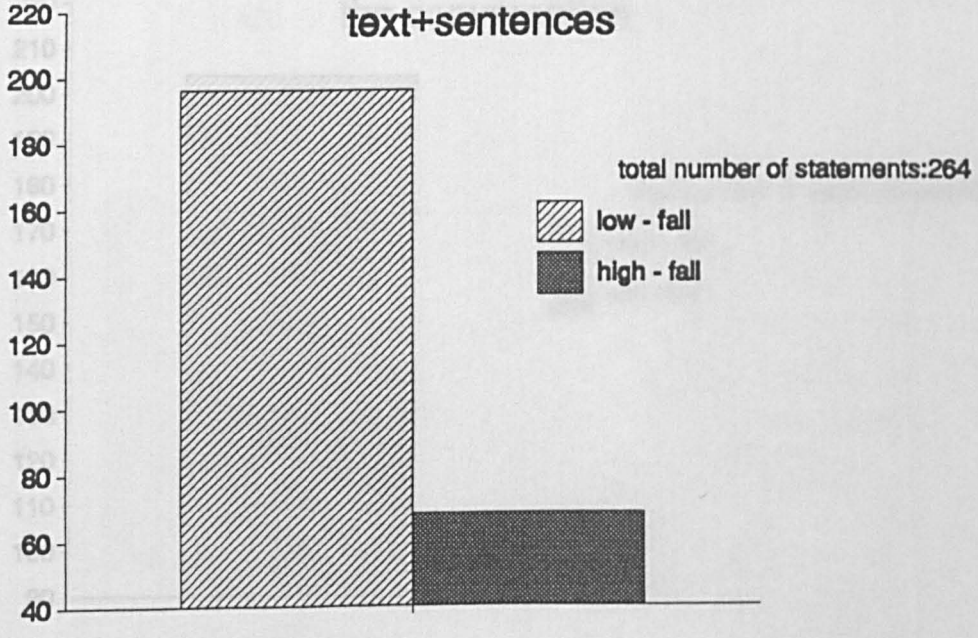

Unmarked tonicity (NES)
total number of sentences:132
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
Legend
nucleus on l l item
nucleus bef l l item

Graph 40


Marked tonicity (NES)
total number of sentences:60
35
34
33
32
31
30
29
28
27
26
25
24
23
22
21
20
Legend
expected deaccent
unexpected deaccent

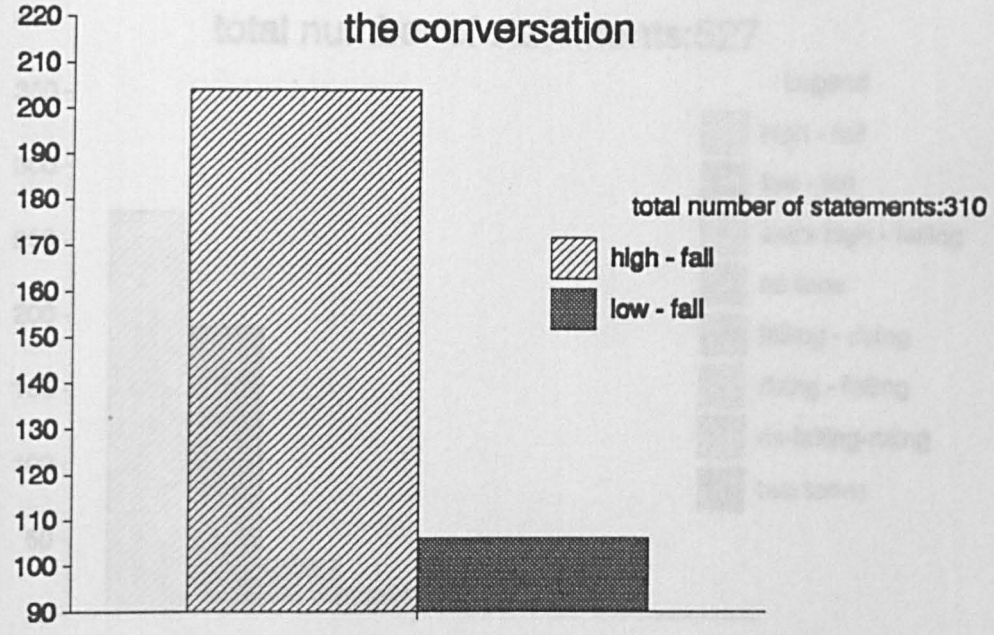
Graph 41

No obvious emotional tension (MG)

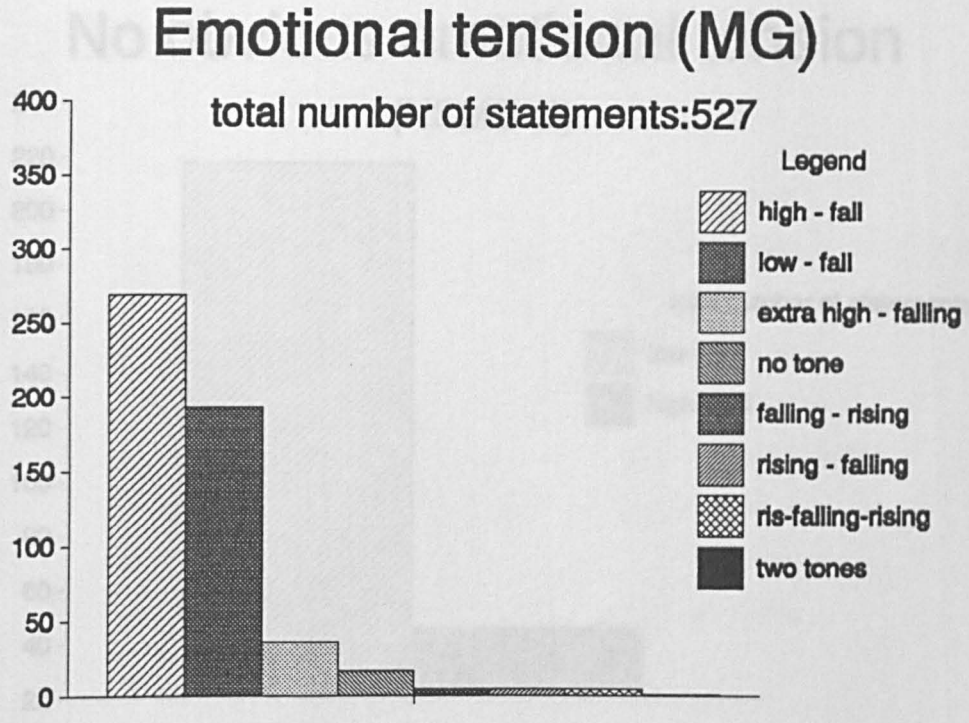


Graph 42

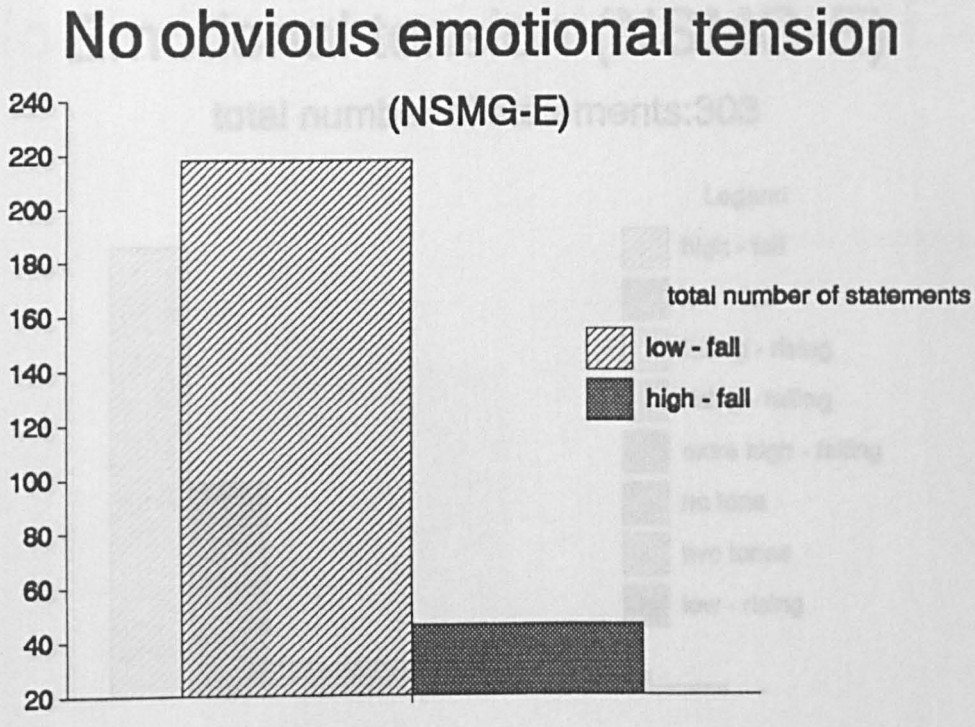
No obvious emotional tension (MG)



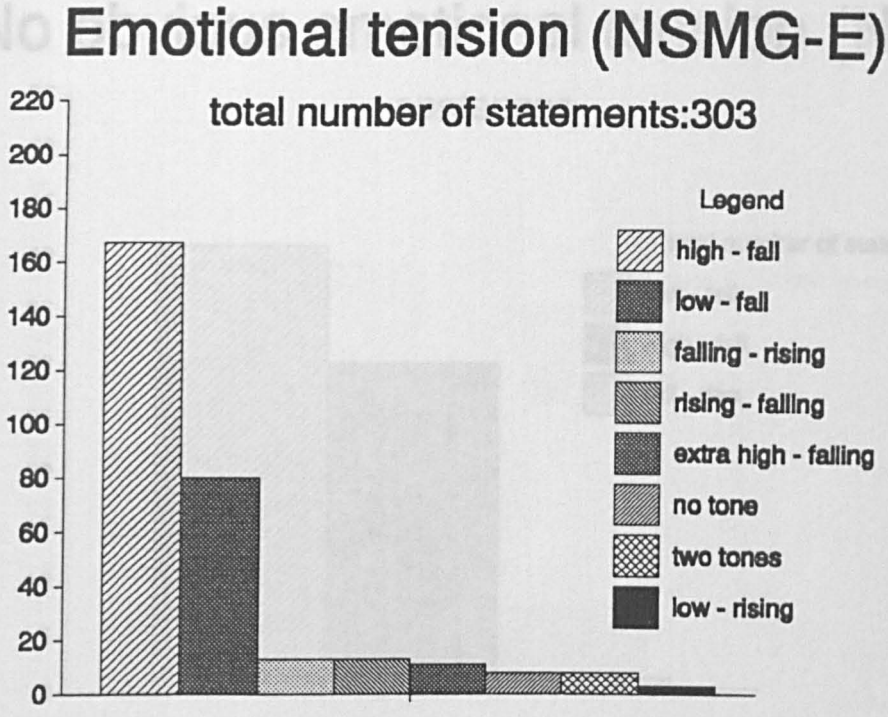
Graph 43


Emotional tension (MG)
total number of statements:527
400
350
300
250
200
150
100
50
0
Legend
high - fall
low - fall
extra high - falling
no tone
falling - rising
rising - falling
ris-falling-rising
two tones

Graph 44

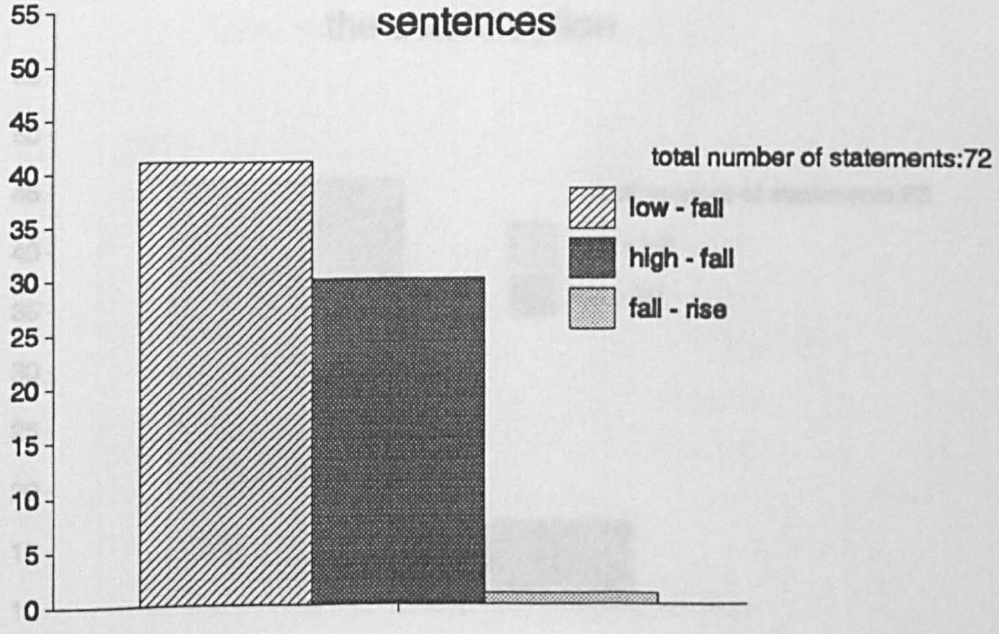

No obvious emotional tension
(NSMG-E)
240
220
200
180
160
140
120
100
80
60
40
20
total number of statements
low - fall
high - fall

Graph 45


Emotional tension (NSMG-E)
total number of statements:303
220
200
180
160
140
120
100
80
60
40
20
0
Legend
high - fall
low - fall
falling - rising
rising - falling
extra high - falling
no tone
two tones
low - rising

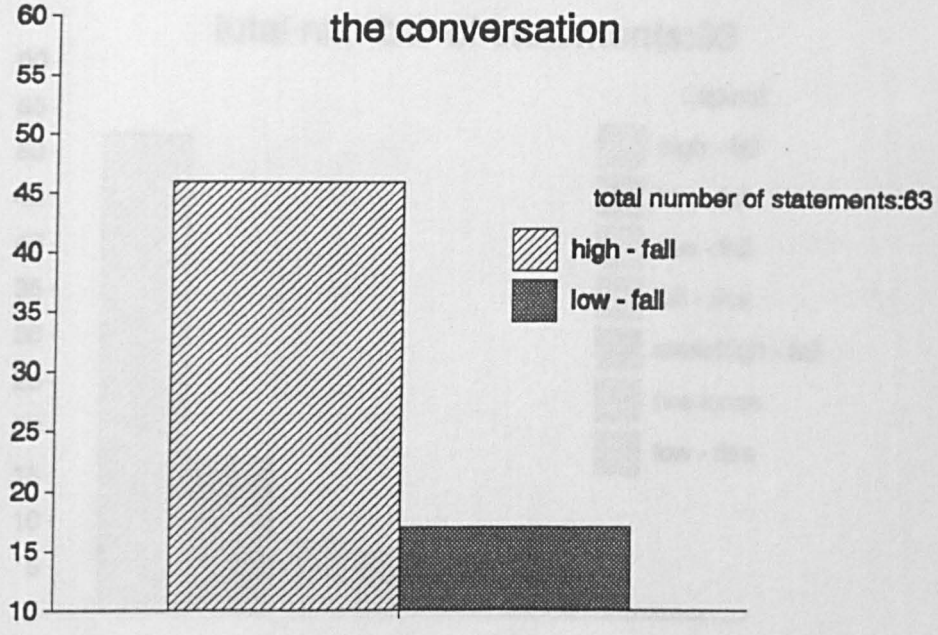
Graph 46

No obvious emotional tension (NES)

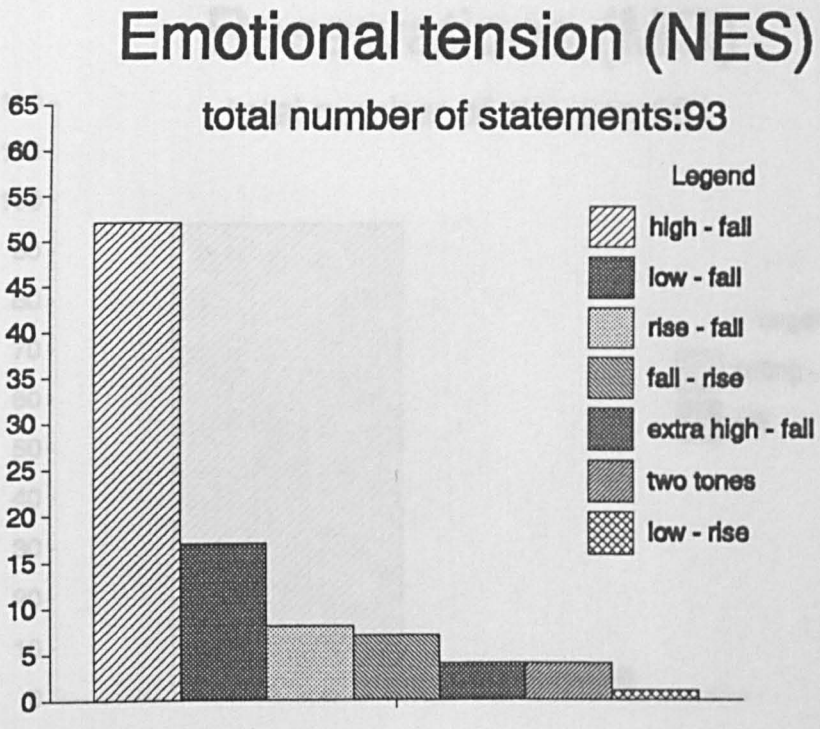


Graph 47

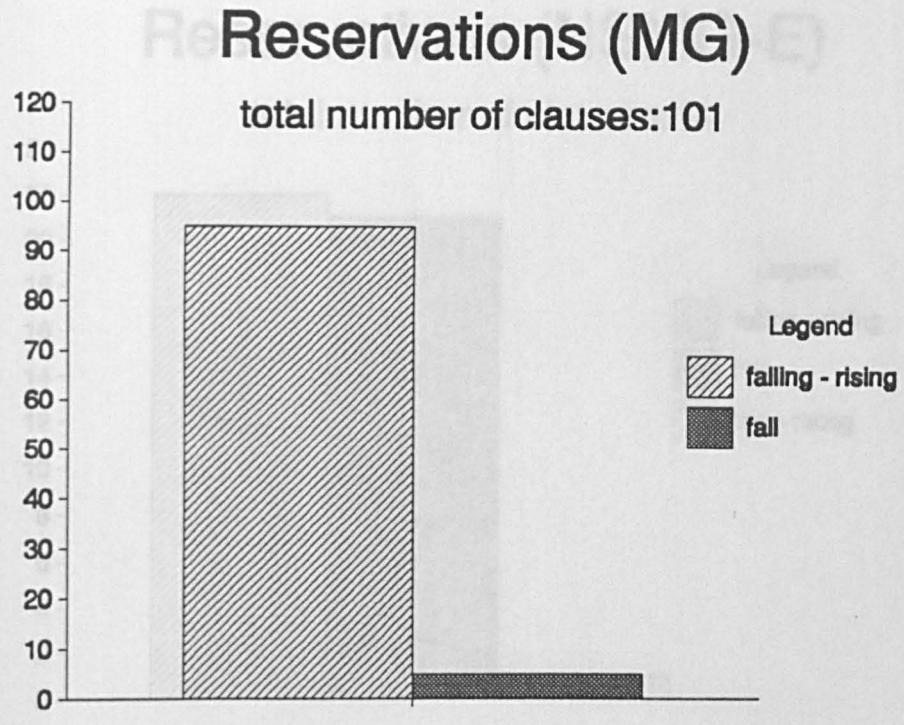
No obvious emotional tension (NES)



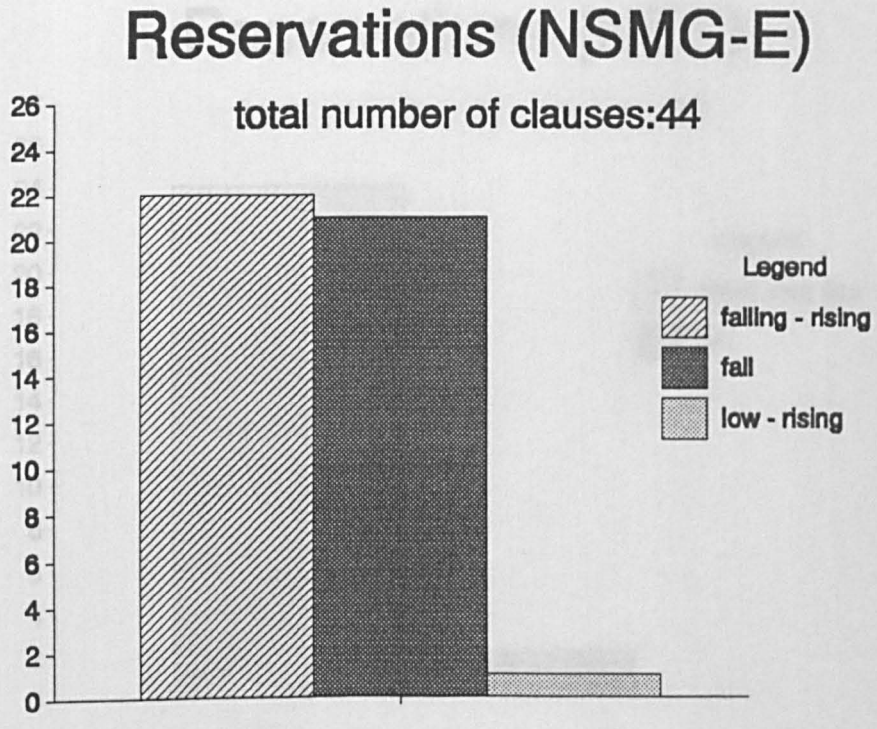
Graph 48


Emotional tension (NES)
total number of statements:93
65
60
55
50
45
40
35
30
25
20
15
10
5
0
Legend
high - fall
low - fall
rise - fall
fall - rise
extra high - fall
two tones
low - rise

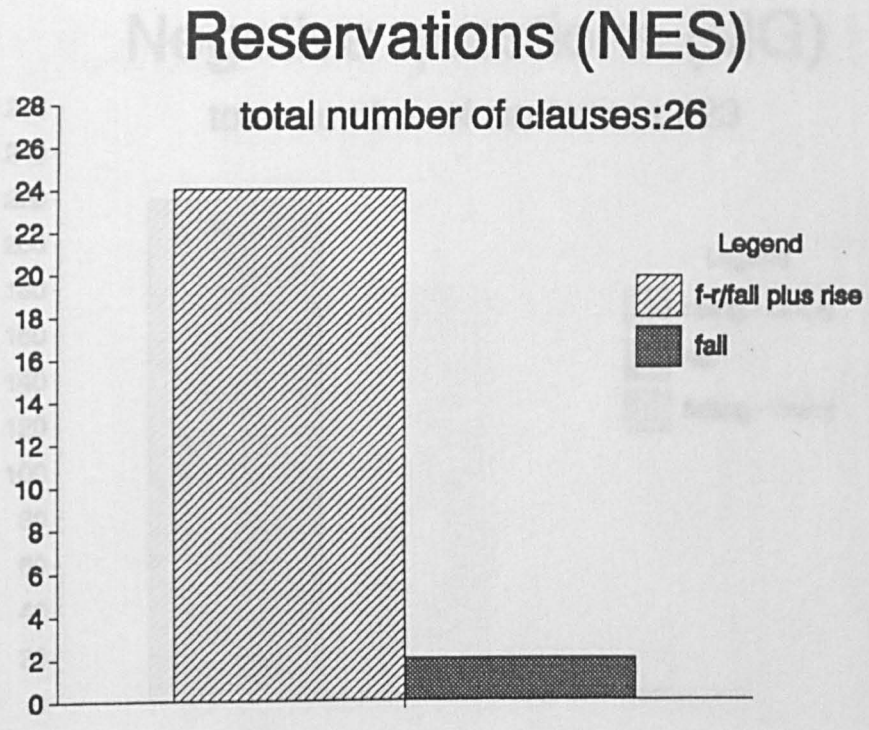
Graph 49


Reservations (MG)
total number of clauses:101
120
110
100
90
80
70
60
50
40
30
20
10
0
Legend
falling - rising
fall

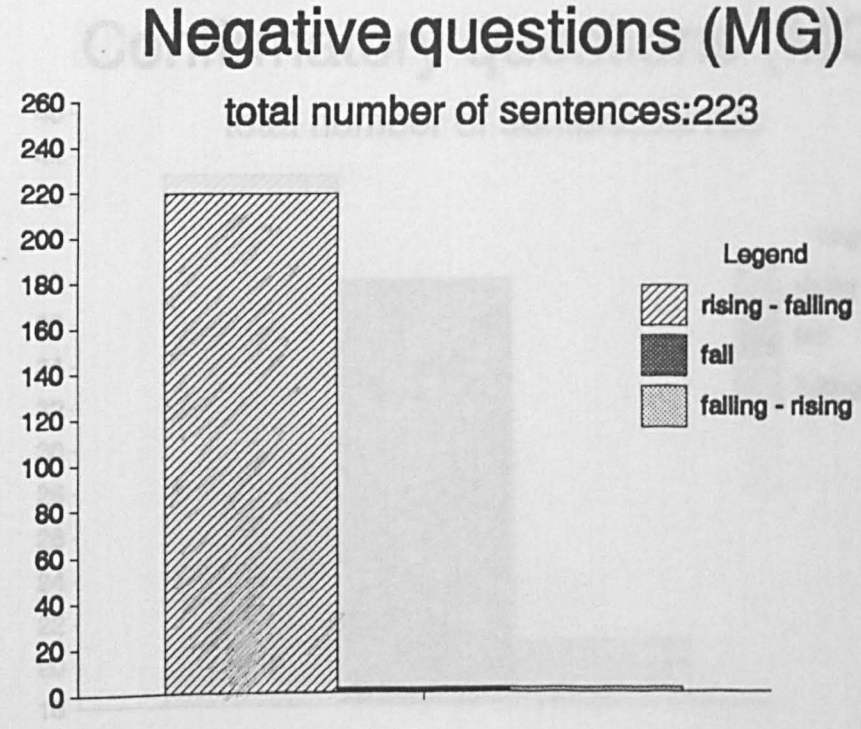
Graph 50


Reservations (NSMG-E)
total number of clauses:44
26
24
22
20
18
16
14
12
10
8
6
4
2
0
Legend
falling - rising
fall
low - rising

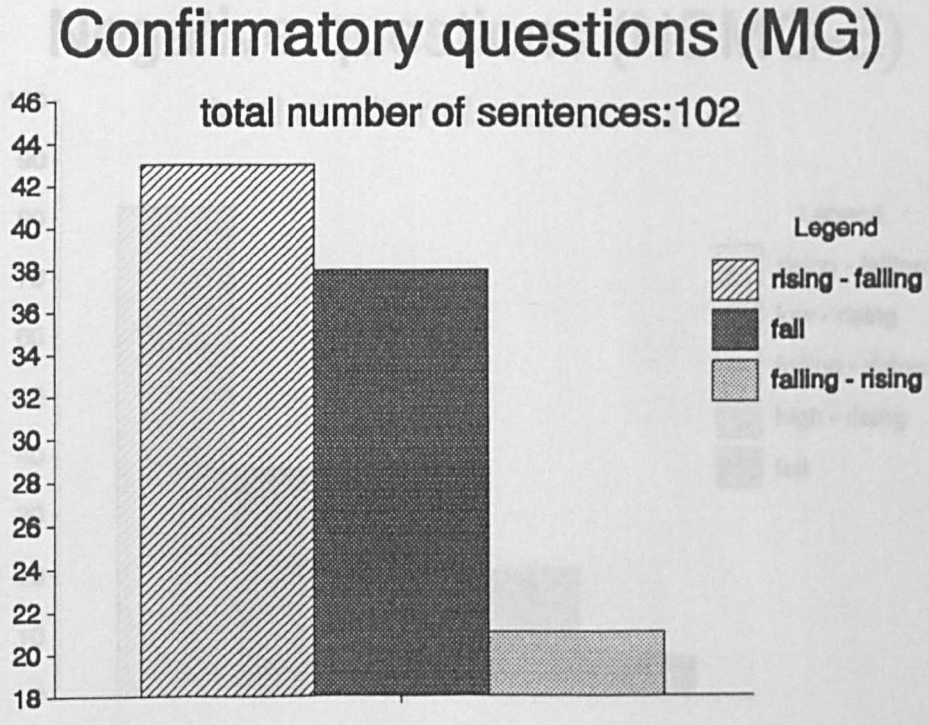
Graph 51


Reservations (NES)
total number of clauses:26
28
26
24
22
20
18
16
14
12
10
8
6
4
2
0
Legend
f-r/fall plus rise
fall

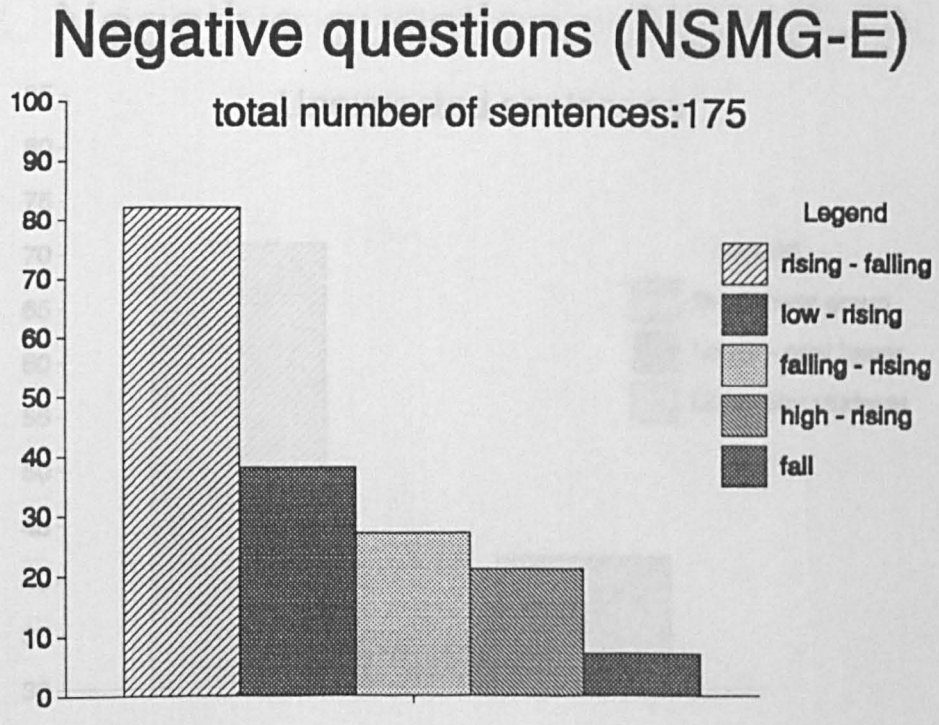
Graph 52


Negative questions (MG)
total number of sentences:223
260
240
220
200
180
160
140
120
100
80
60
40
20
0
Legend
rising - falling
fall
falling - rising

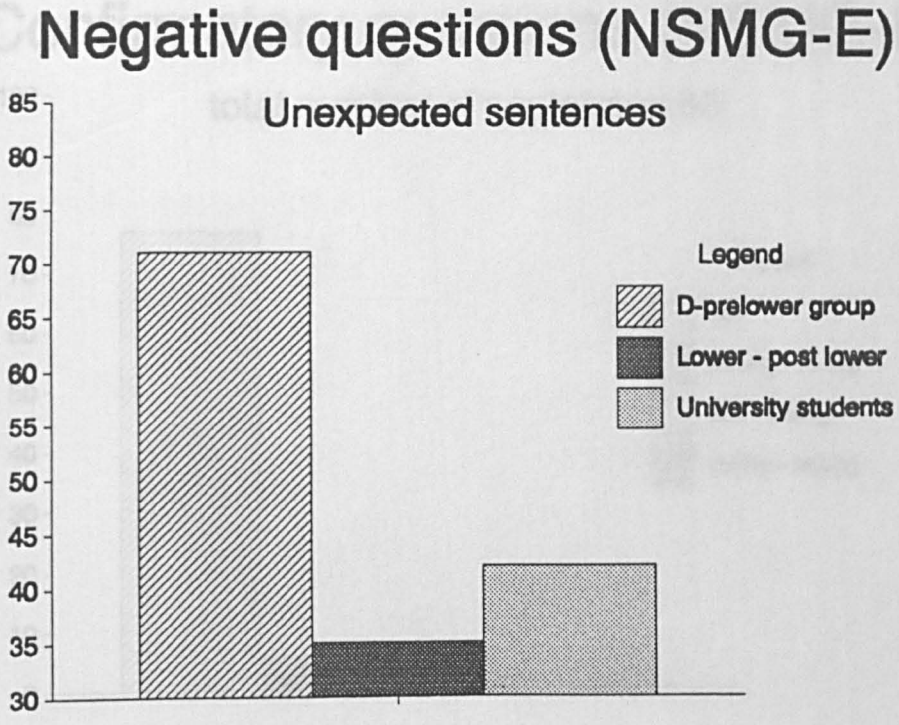
Graph 53


Confirmatory questions (MG)
total number of sentences:102
46
44
42
40
38
36
34
32
30
28
26
24
22
20
18
Legend
rising - falling
fall
falling - rising

Graph 54

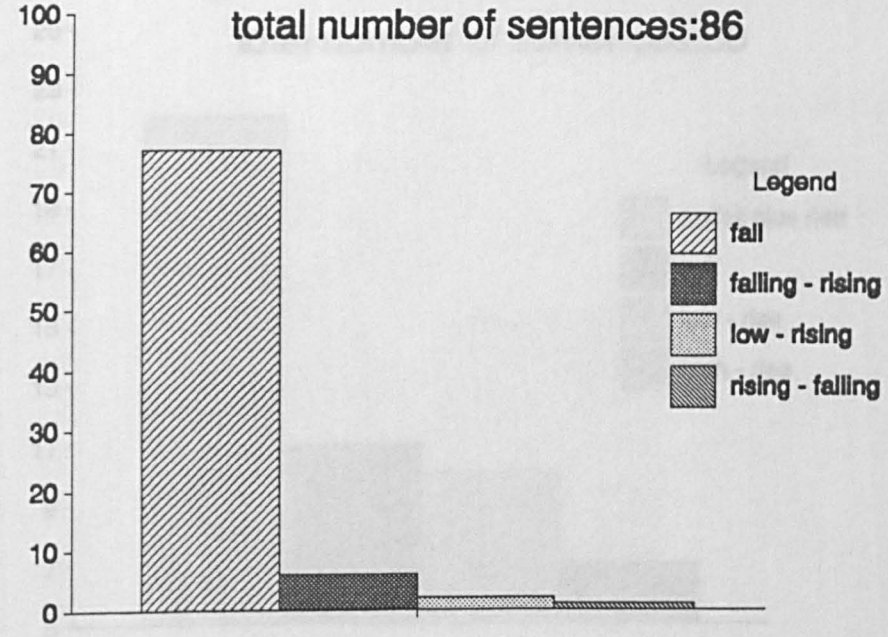

Negative questions (NSMG-E)
total number of sentences:175
100
90
80
70
60
50
40
30
20
10
0
Legend
rising - falling
low - rising
falling - rising
high - rising
fall

Graph 55

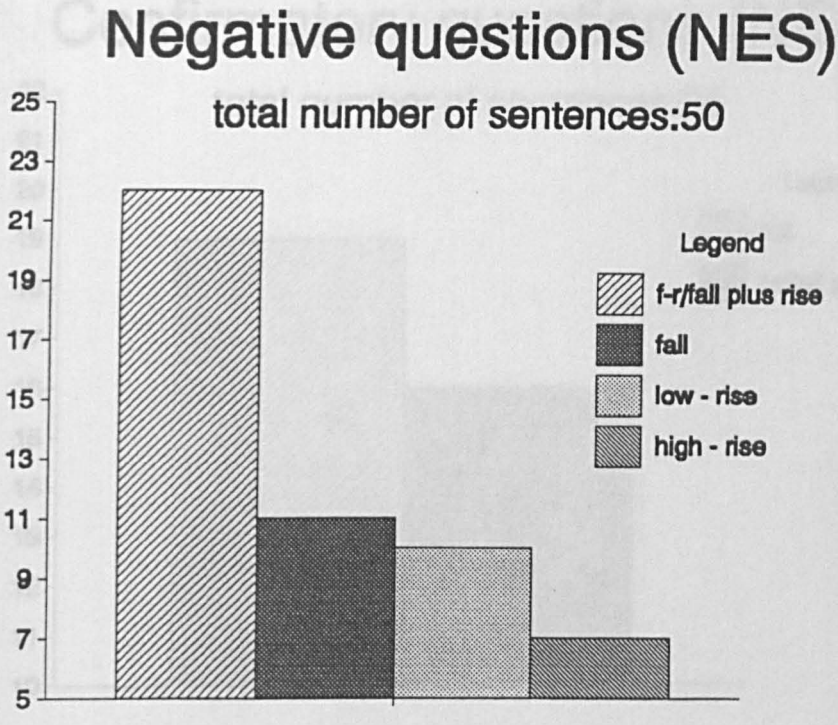

Negative questions (NSMG-E)
Unexpected sentences
85
80
75
70
65
60
55
50
45
40
35
30
Legend
D-prelower group
Lower - post lower
University students

Graph 56

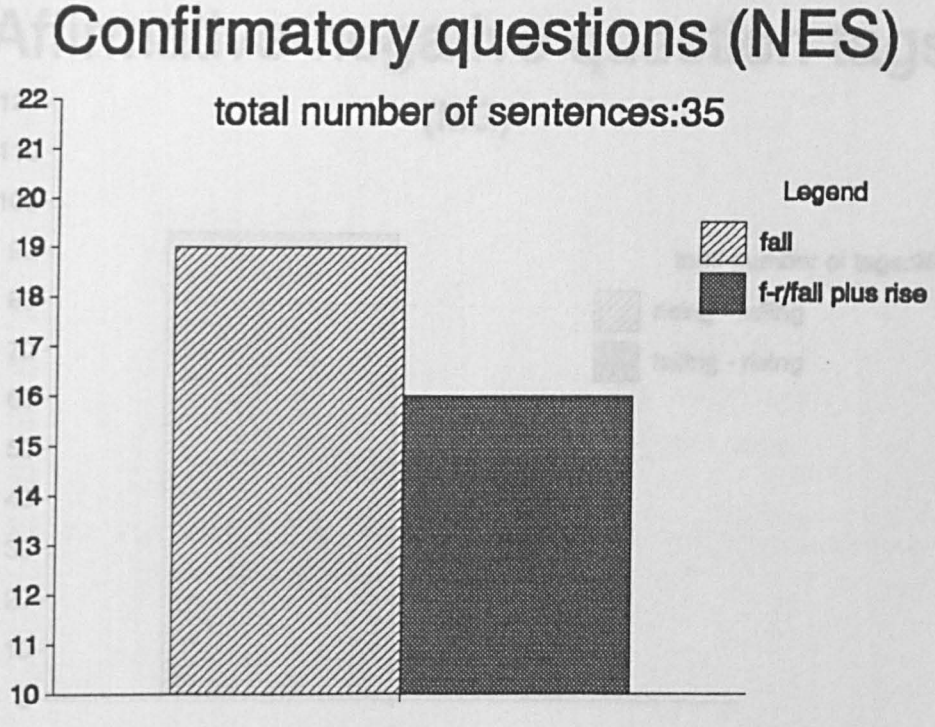
Confirmatory questions (NSMG-E)



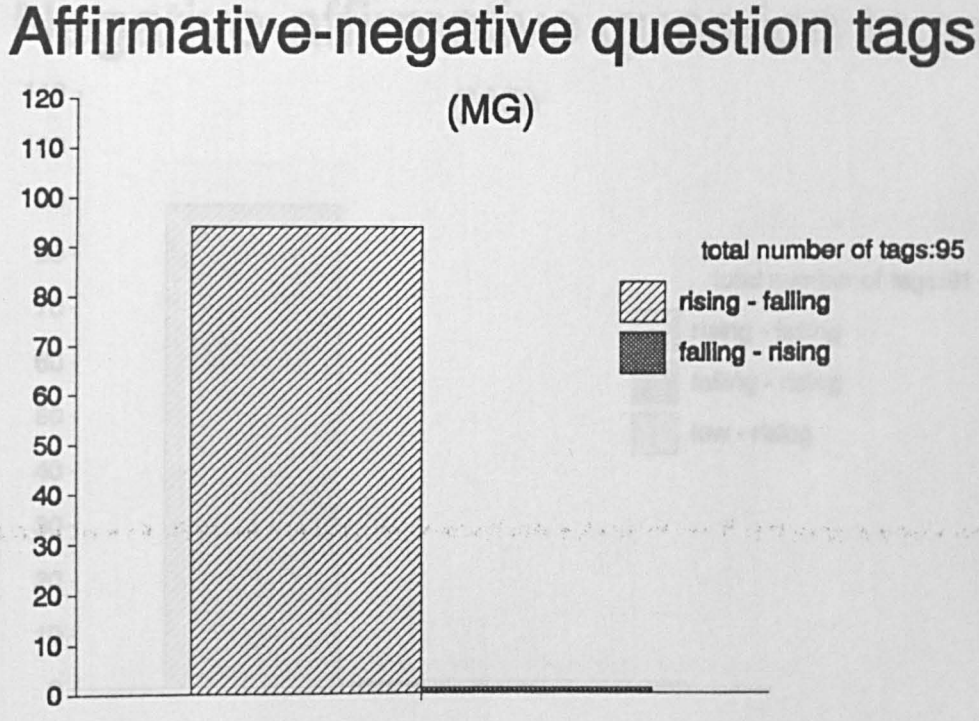
Graph 57


Negative questions (NES)
total number of sentences:50
25
23
21
19
17
15
13
11
9
7
5
Legend
f-r/fall plus rise
fall
low - rise
high - rise

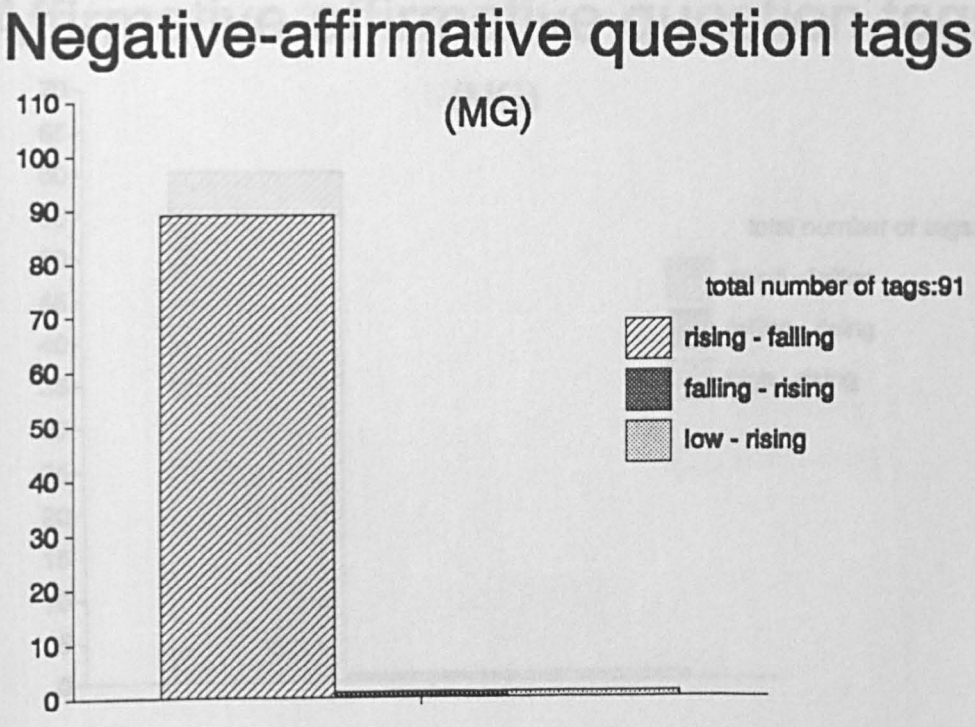
Graph 58


Confirmatory questions (NES)
total number of sentences:35
22
21
20
19
18
17
16
15
14
13
12
11
10
Legend
fall
f-r/fall plus rise

Graph 59

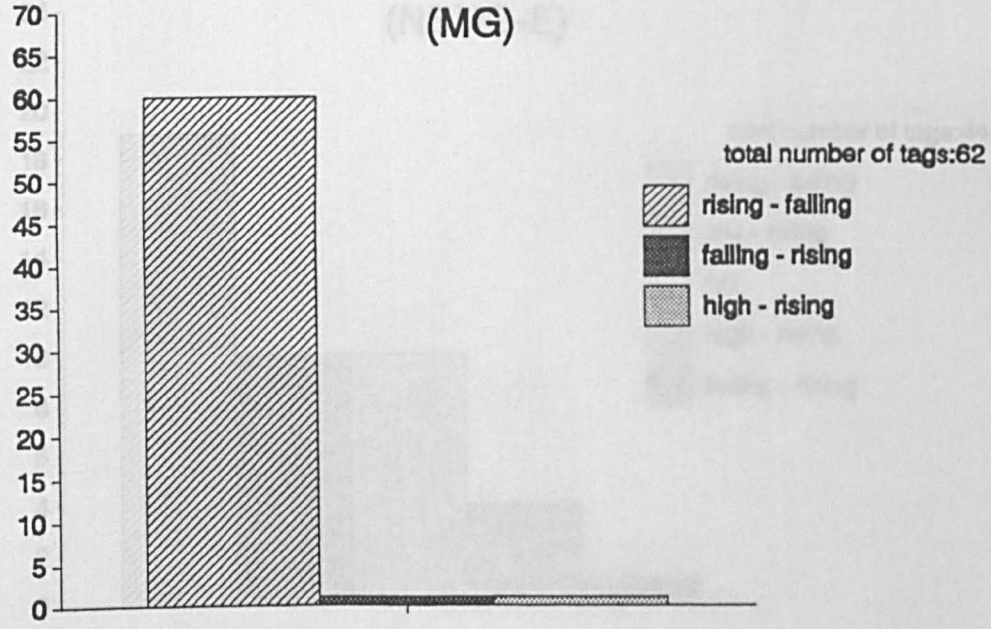

Affirmative-negative question tags
(MG)
120
110
100
90
80
70
60
50
40
30
20
10
0
total number of tags:95
rising - falling
falling - rising

Graph 60

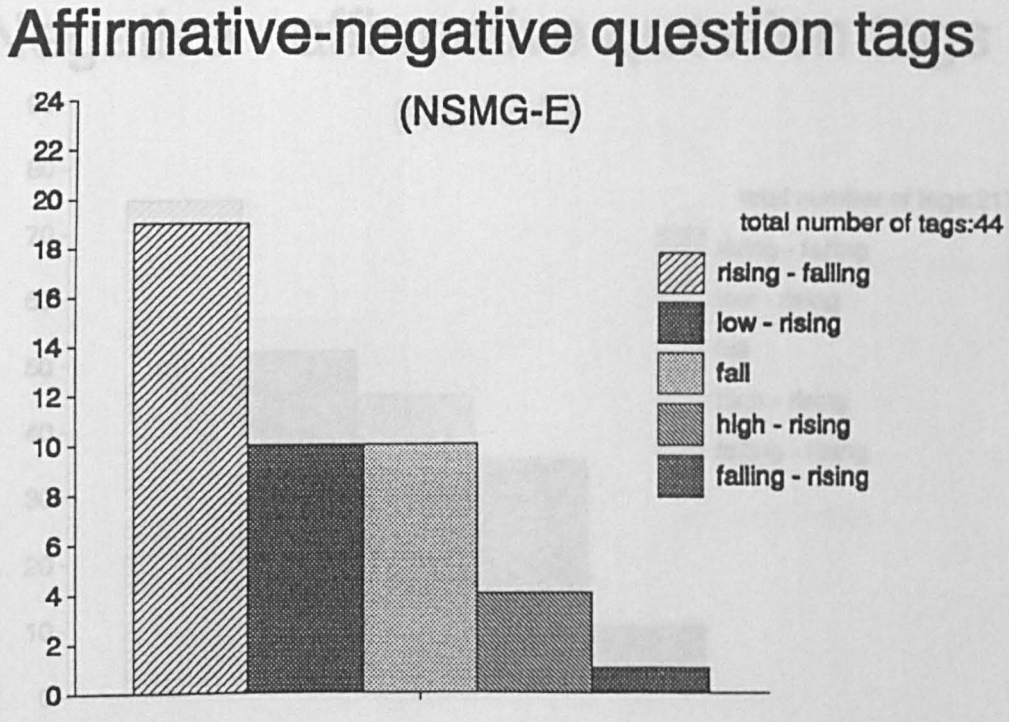

Negative-affirmative question tags
(MG)
110
100
90
80
70
60
50
40
30
20
10
0
total number of tags:91
rising - falling
falling - rising
low - rising

Graph 61

Affirmative-affirmative question tags

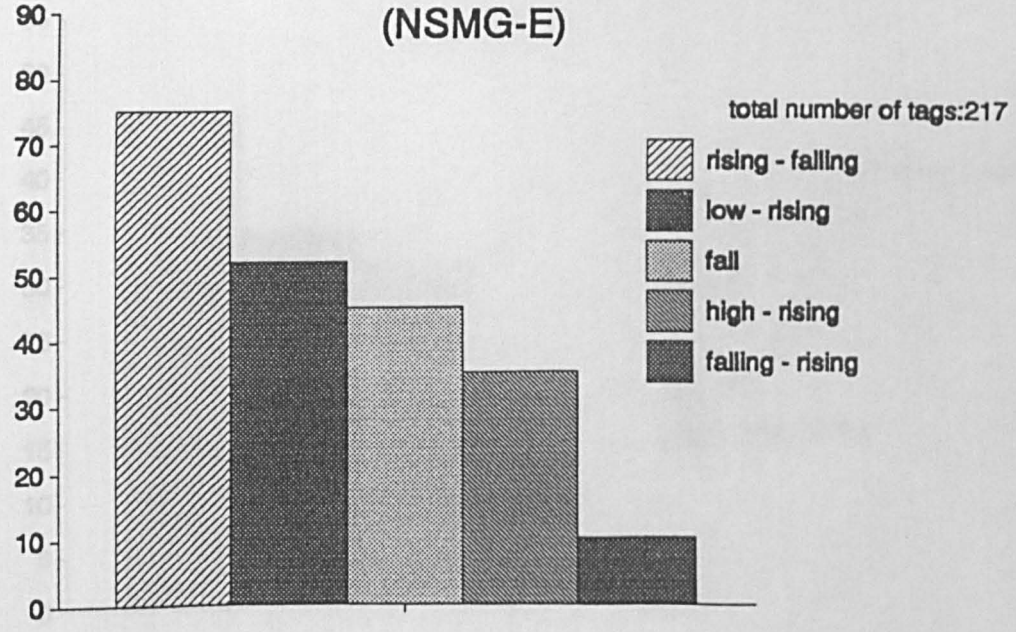


Graph 62


Affirmative-negative question tags
(NSMG-E)
24
22
20
18
16
14
12
10
8
6
4
2
0
total number of tags:44
rising - falling
low - rising
fall
high - rising
falling - rising

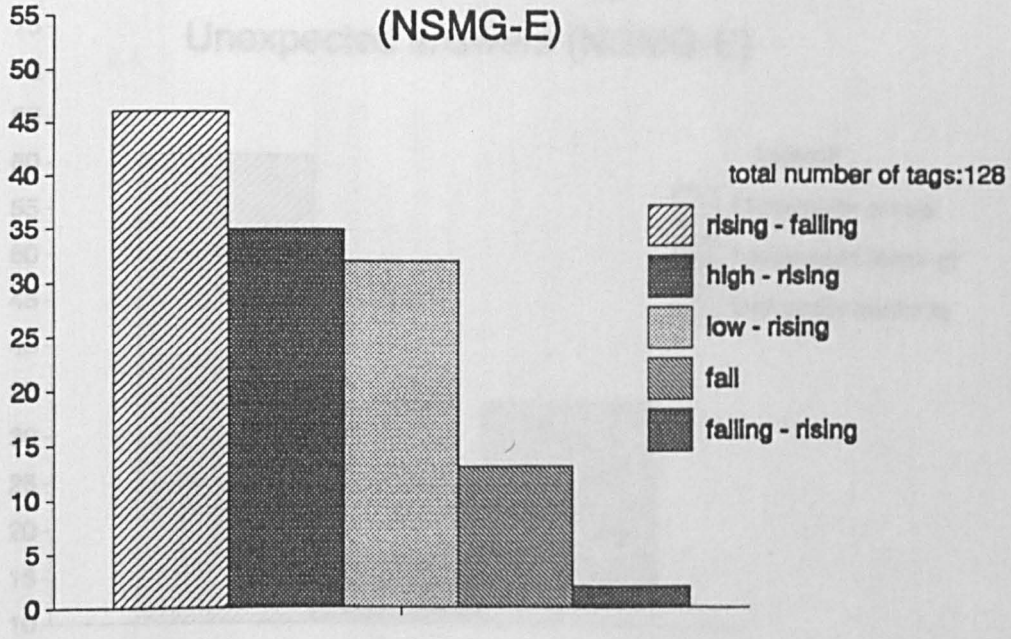
Graph 63

Negative - affirmative question tags

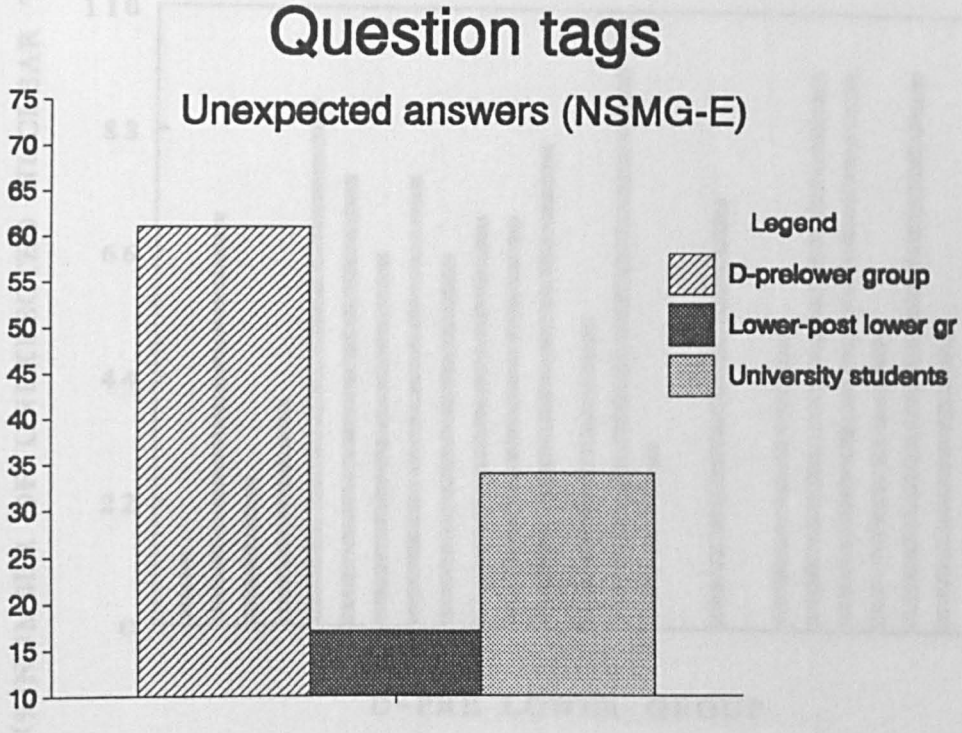


Graph 64

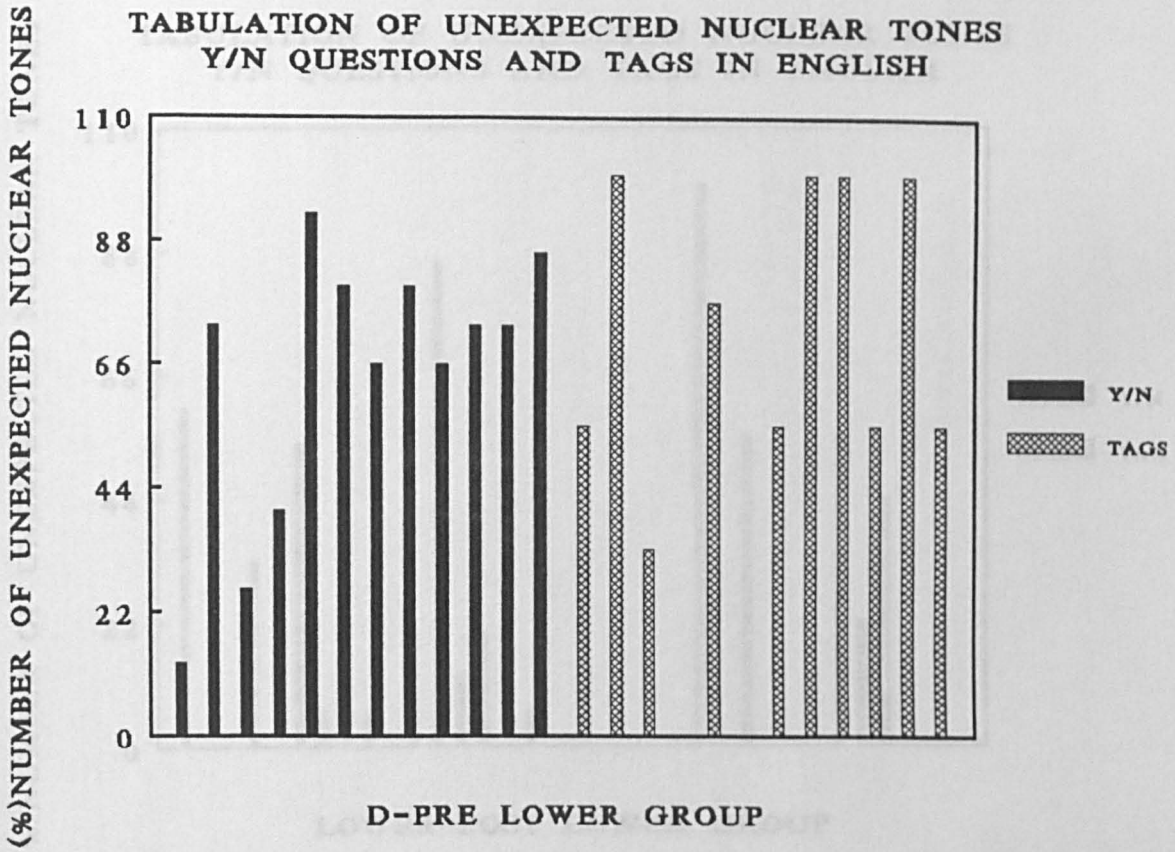
Affirmative-affirmative question tags



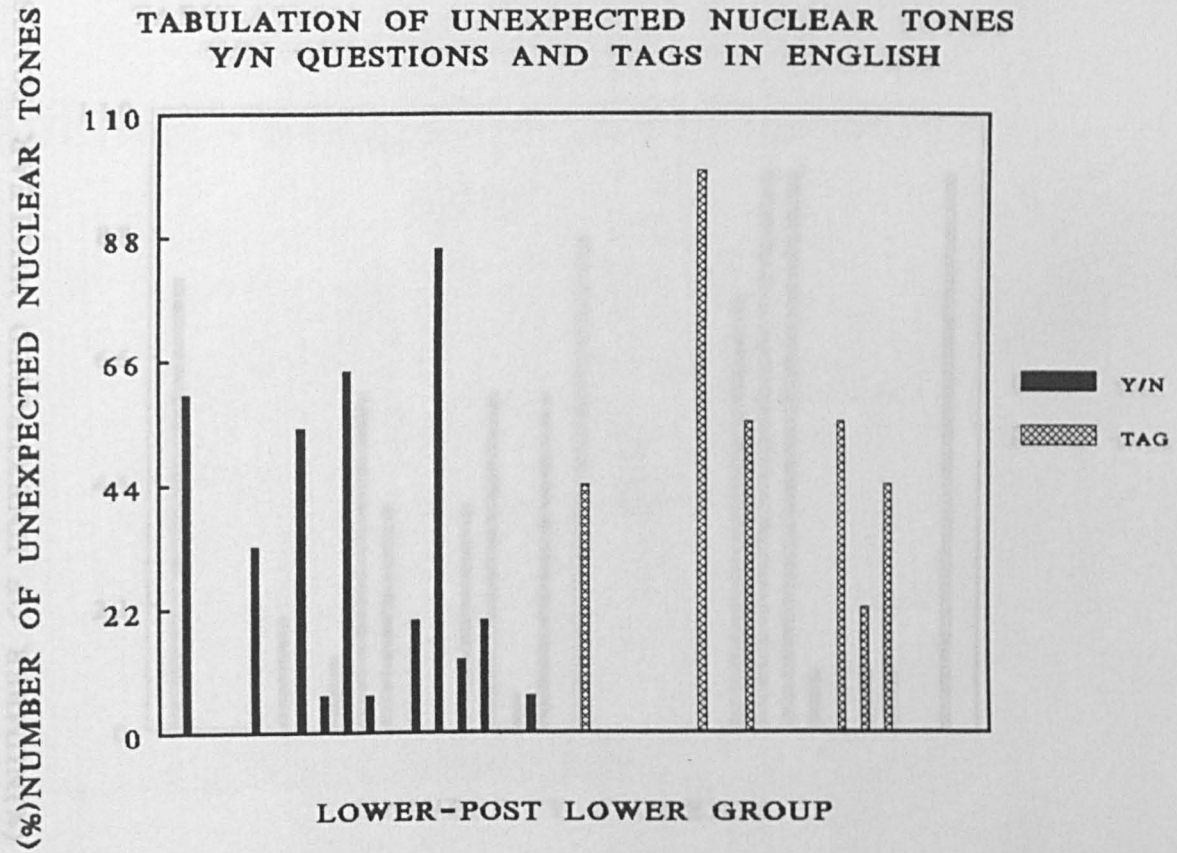
Graph 65


Question tags
Unexpected answers (NSMG-E)
75
70
65
60
55
50
45
40
35
30
25
20
15
10
Legend
D-prelower group
Lower-post lower gr
University students

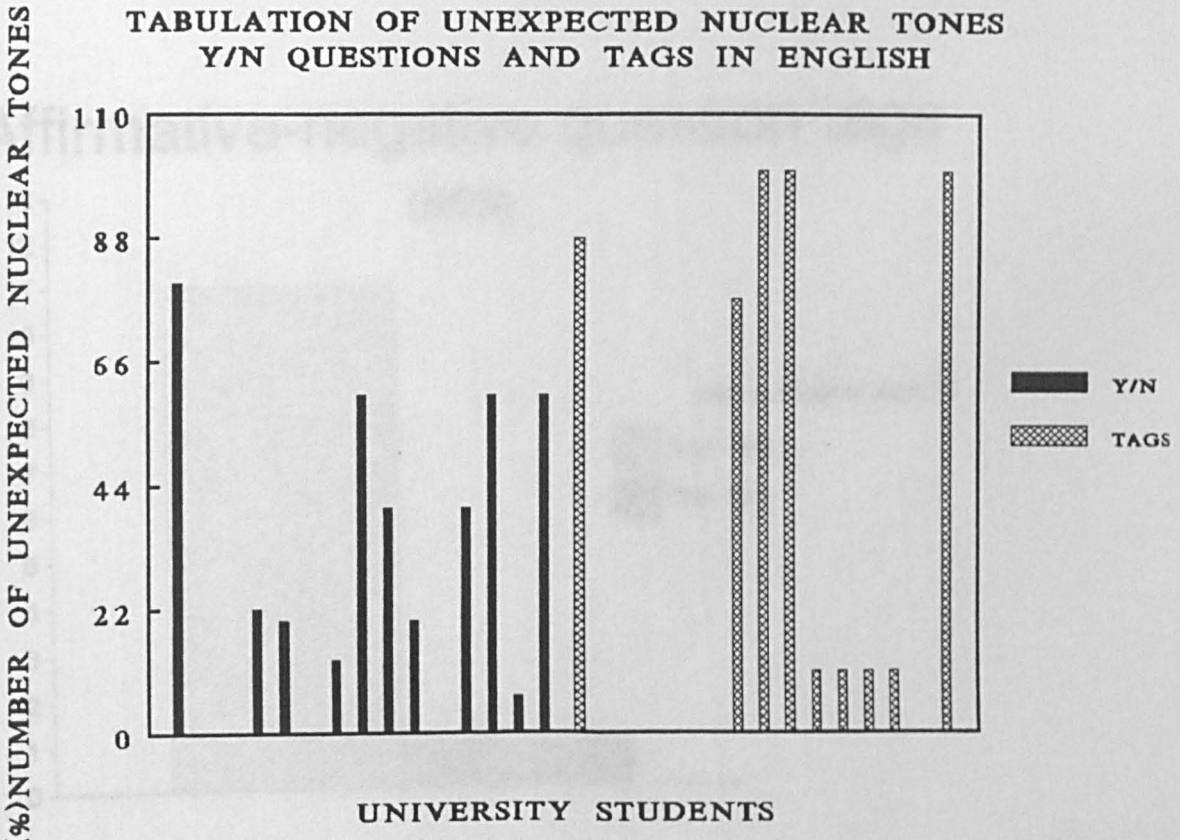
Graph 66


TABULATION OF UNEXPECTED NUCLEAR TONES
Y/N QUESTIONS AND TAGS IN ENGLISH
(%)NUMBER OF UNEXPECTED NUCLEAR TONES
110
88
66
44
22
0
Y/N
TAGS
D-PRE LOWER GROUP

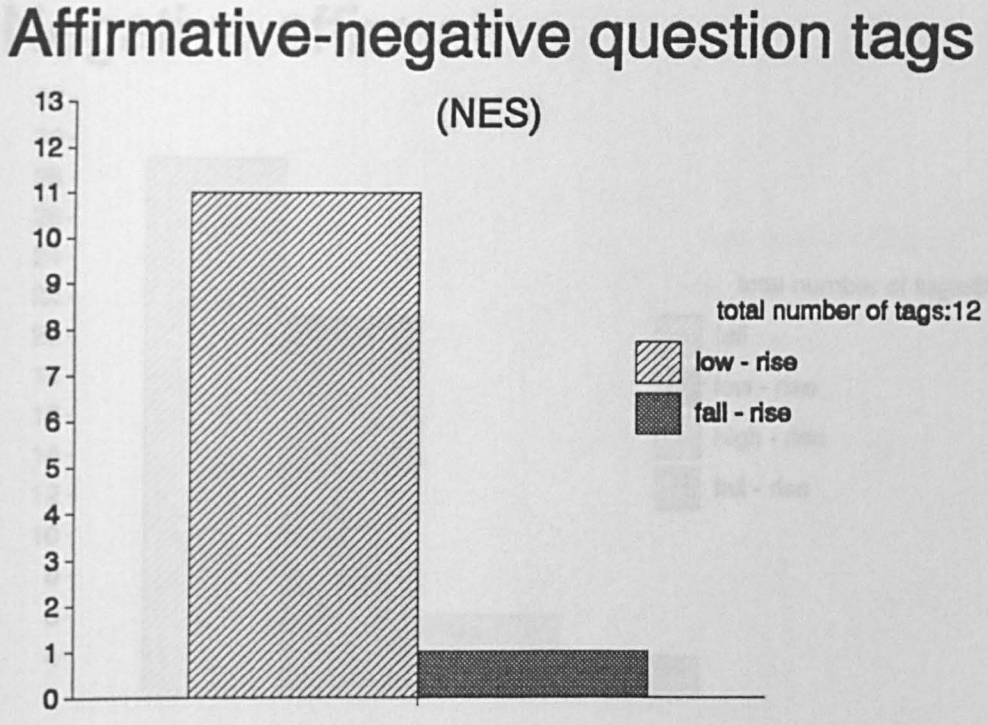
Graph 67


TABULATION OF UNEXPECTED NUCLEAR TONES
Y/N QUESTIONS AND TAGS IN ENGLISH
(%)NUMBER OF UNEXPECTED NUCLEAR TONES
110
88
66
44
22
0
Y/N
TAG
LOWER-POST LOWER GROUP

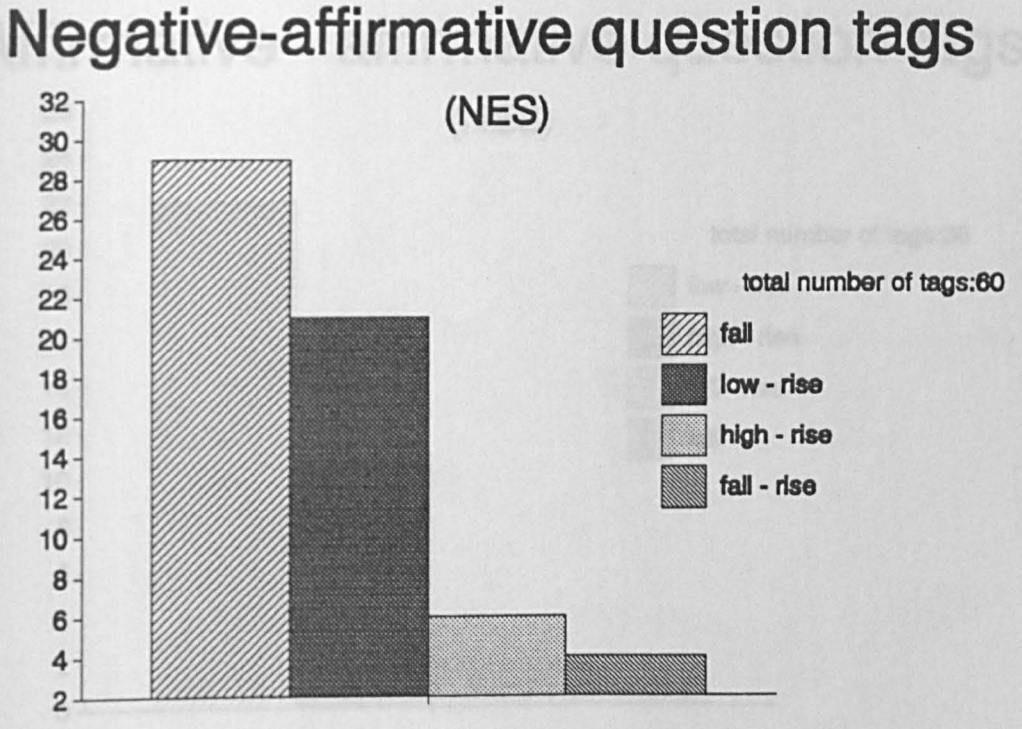
Graph 68


TABULATION OF UNEXPECTED NUCLEAR TONES
Y/N QUESTIONS AND TAGS IN ENGLISH
(%)NUMBER OF UNEXPECTED NUCLEAR TONES
110
88
66
44
22
0
Y/N
TAGS
UNIVERSITY STUDENTS

Graph 69

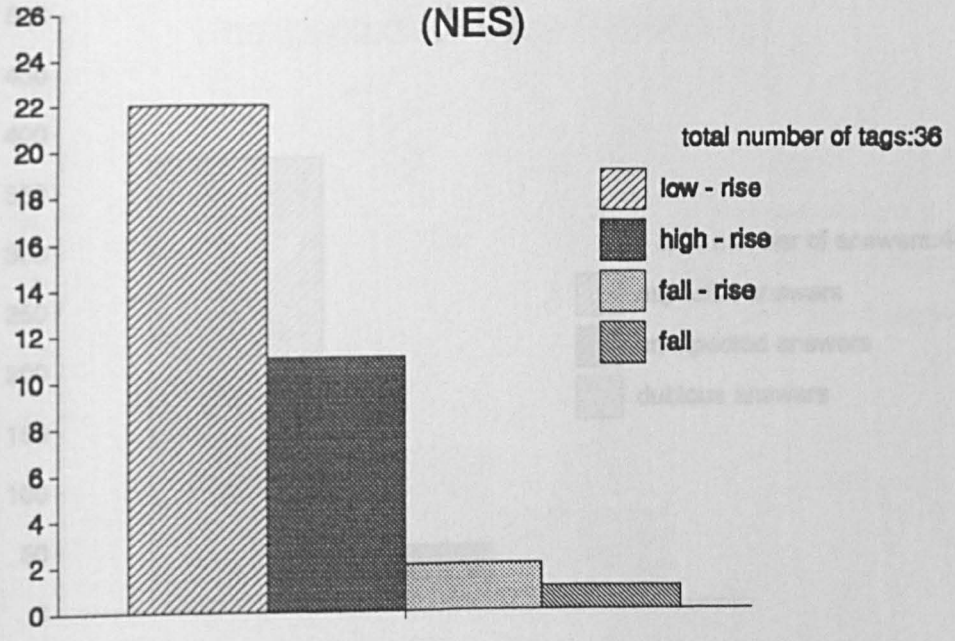

Affirmative-negative question tags
(NES)
13
12
11
10
9
8
7
6
5
4
3
2
1
0
total number of tags:12
low - rise
fall - rise

Graph 70

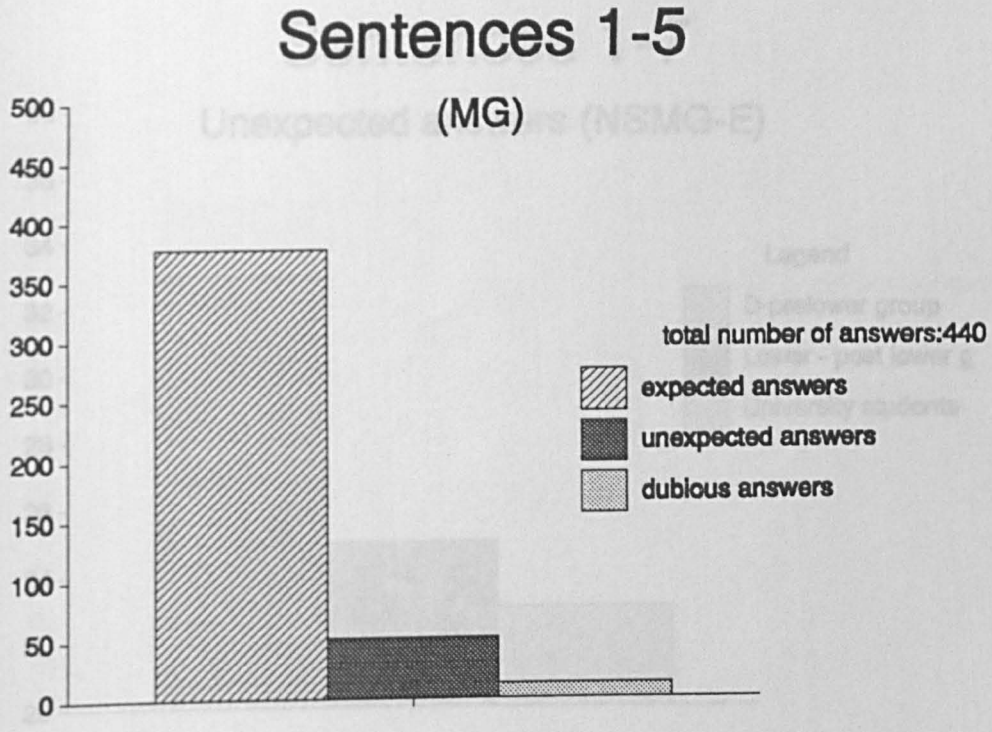

Negative-affirmative question tags
(NES)
32
30
28
26
24
22
20
18
16
14
12
10
8
6
4
2
total number of tags:60
fall
low - rise
high - rise
fall - rise

Graph 71

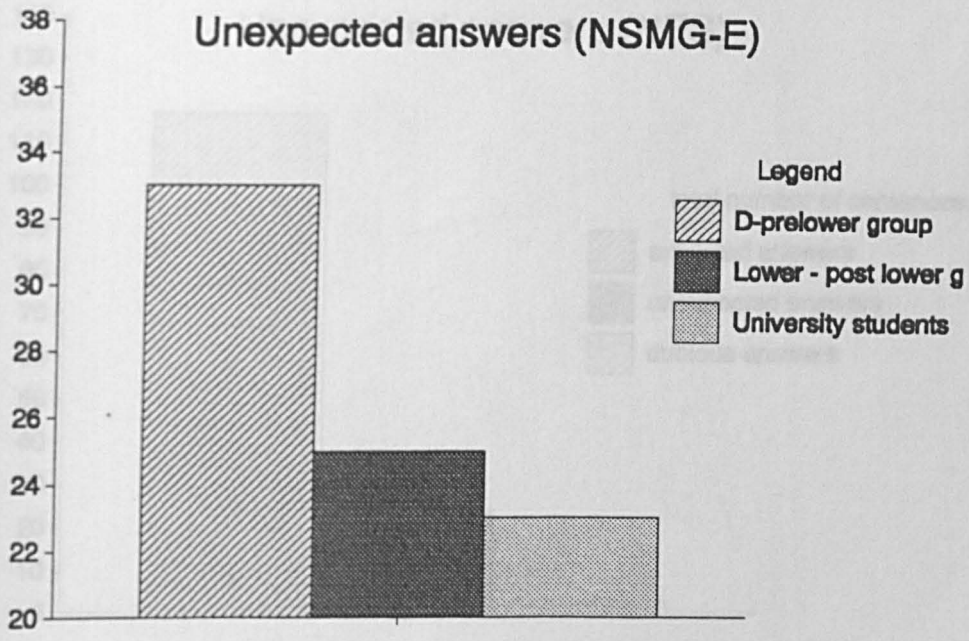
Affirmative - affirmative question tags



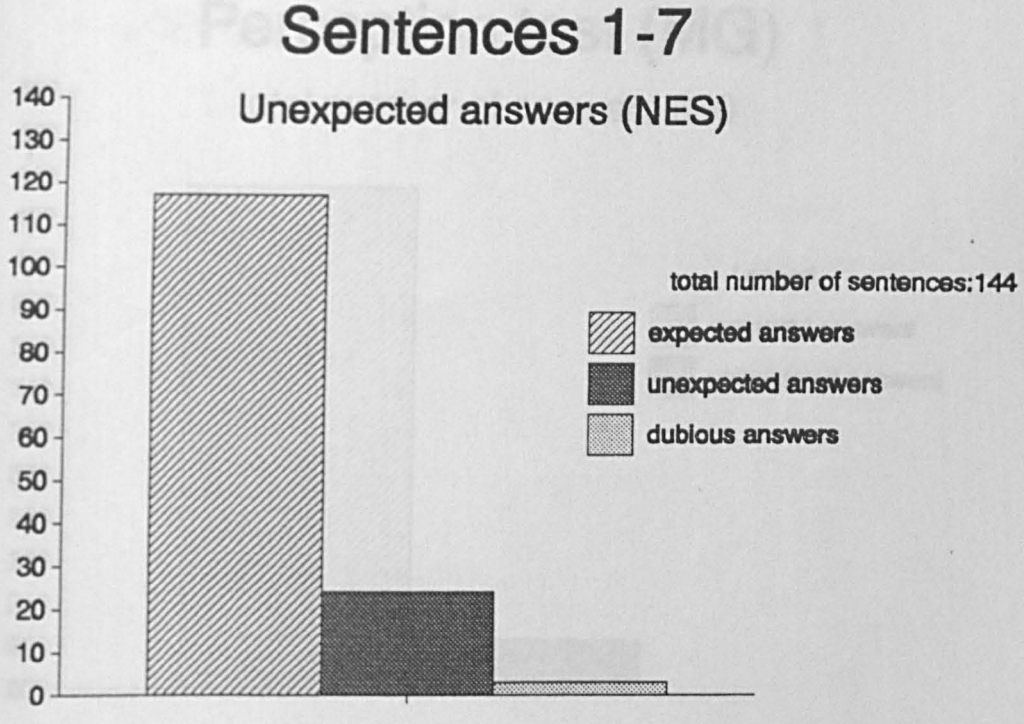
Graph 72


Sentences 1-5
(MG)
500
450
400
350
300
250
200
150
100
50
0
total number of answers:440
expected answers
unexpected answers
dubious answers

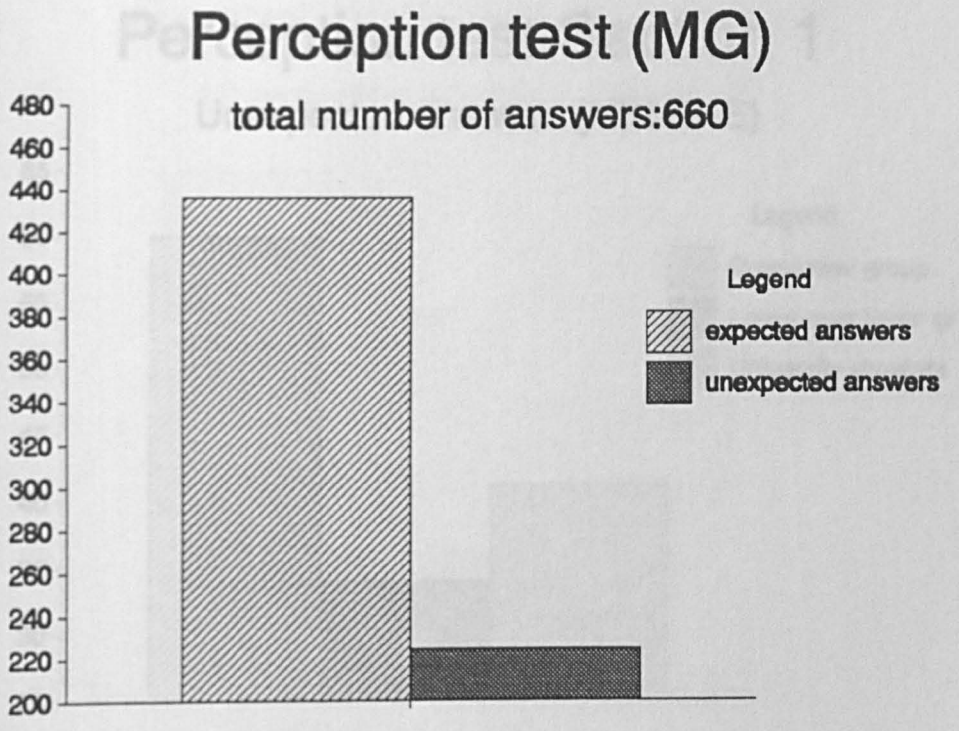
Graph 73


Sentences 1-7
Unexpected answers (NSMG-E)
38
36
34
32
30
28
26
24
22
20
Legend
D-prelower group
Lower - post lower g
University students

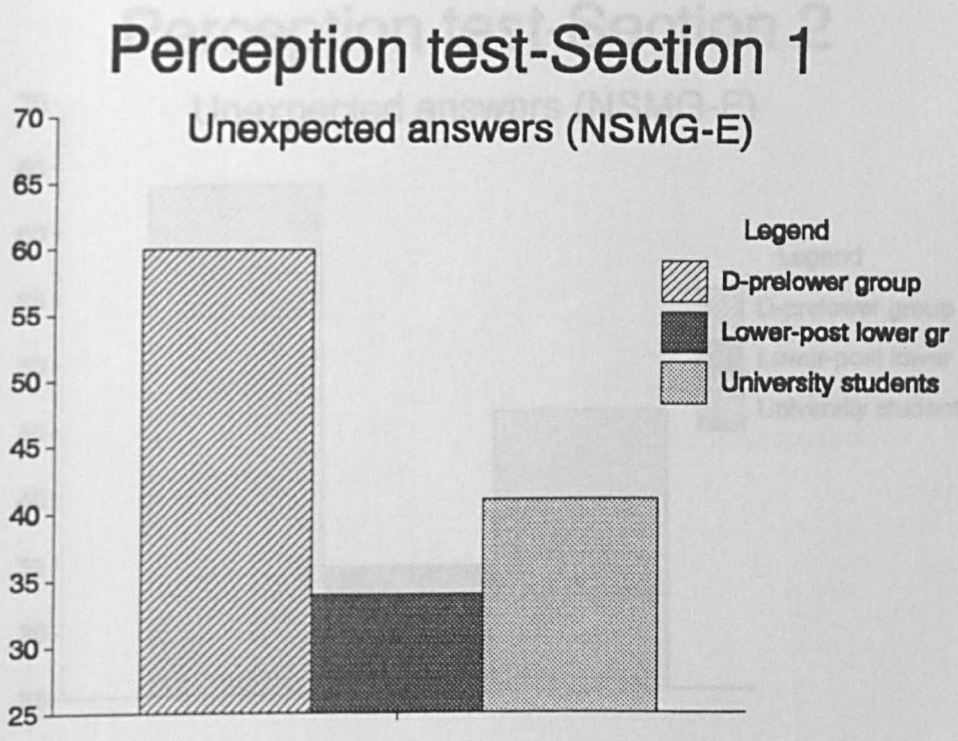
Graph 74


Sentences 1-7
Unexpected answers (NES)
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
total number of sentences:144
expected answers
unexpected answers
dubious answers

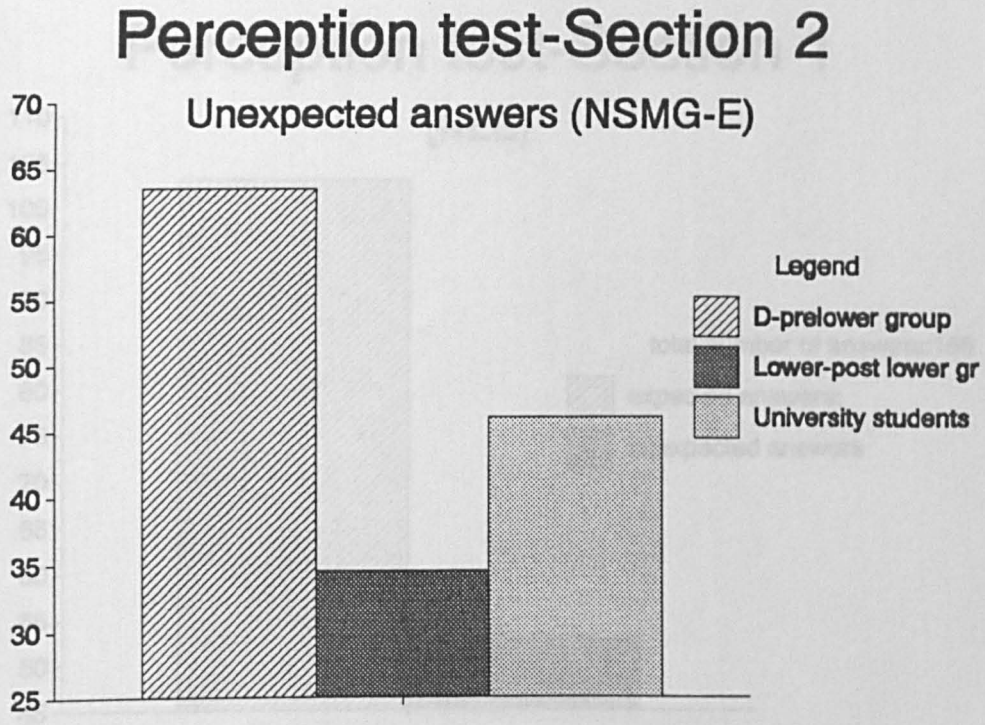
Graph 75


Perception test (MG)
total number of answers:660
480
460
440
420
400
380
360
340
320
300
280
260
240
220
200
Legend
expected answers
unexpected answers

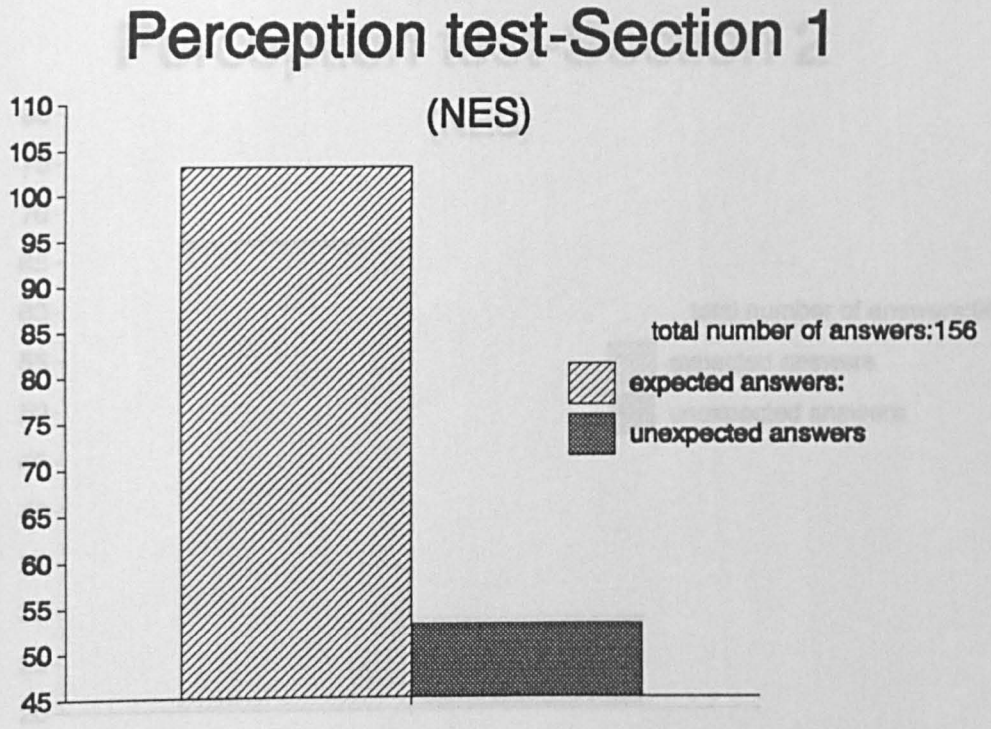
Graph 76


Perception test-Section 1
Unexpected answers (NSMG-E)
70
65
60
55
50
45
40
35
30
25
Legend
D-prelower group
Lower-post lower gr
University students

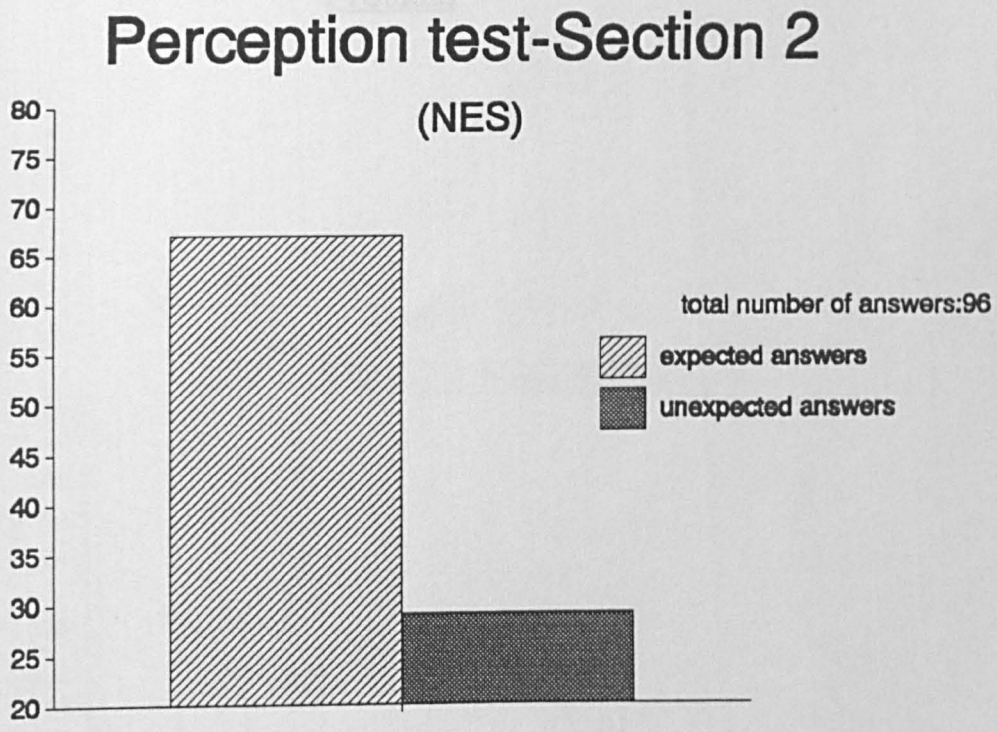
Graph 77


Perception test-Section 2
Unexpected answers (NSMG-E)
70
65
60
55
50
45
40
35
30
25
Legend
D-prelower group
Lower-post lower gr
University students

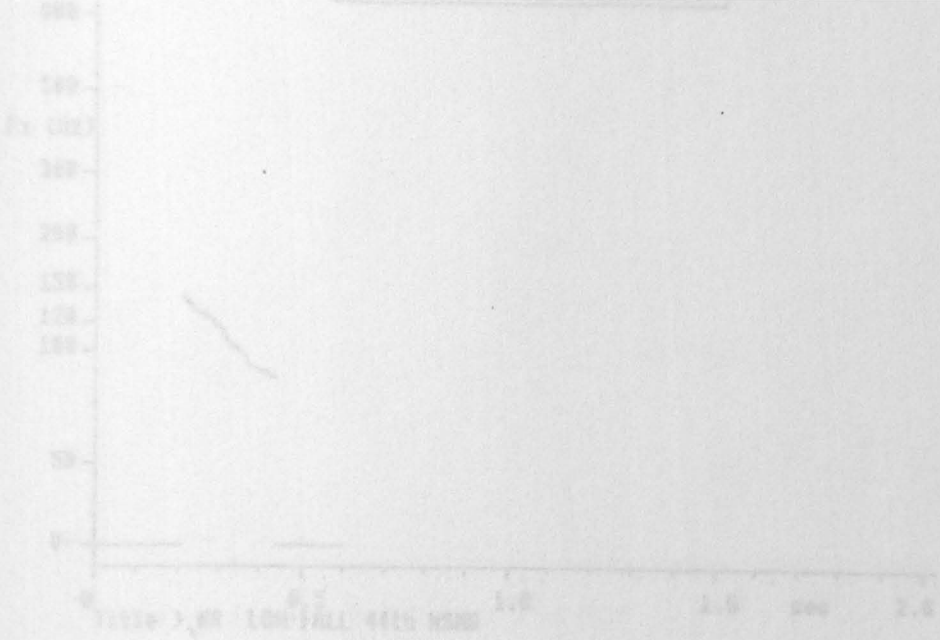
Graph 78


Perception test-Section 1
(NES)
110
105
100
95
90
85
80
75
70
65
60
55
50
45
total number of answers:156
expected answers:
unexpected answers

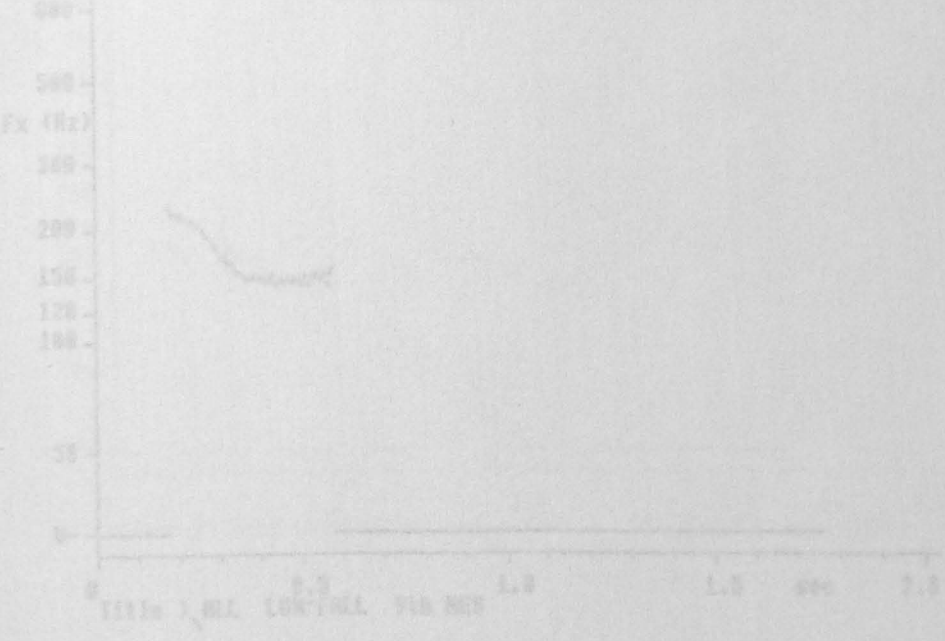
Graph 79


Perception test-Section 2
(NES)
80
75
70
65
60
55
50
45
40
35
30
25
20
total number of answers:96
expected answers
unexpected answers

Graph 80



FIGURES



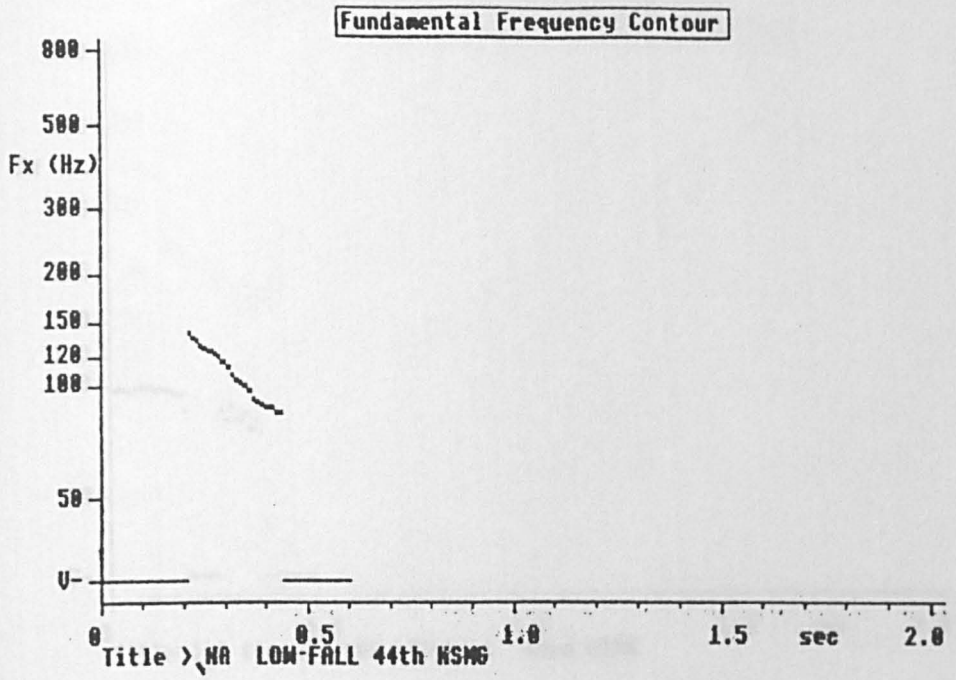
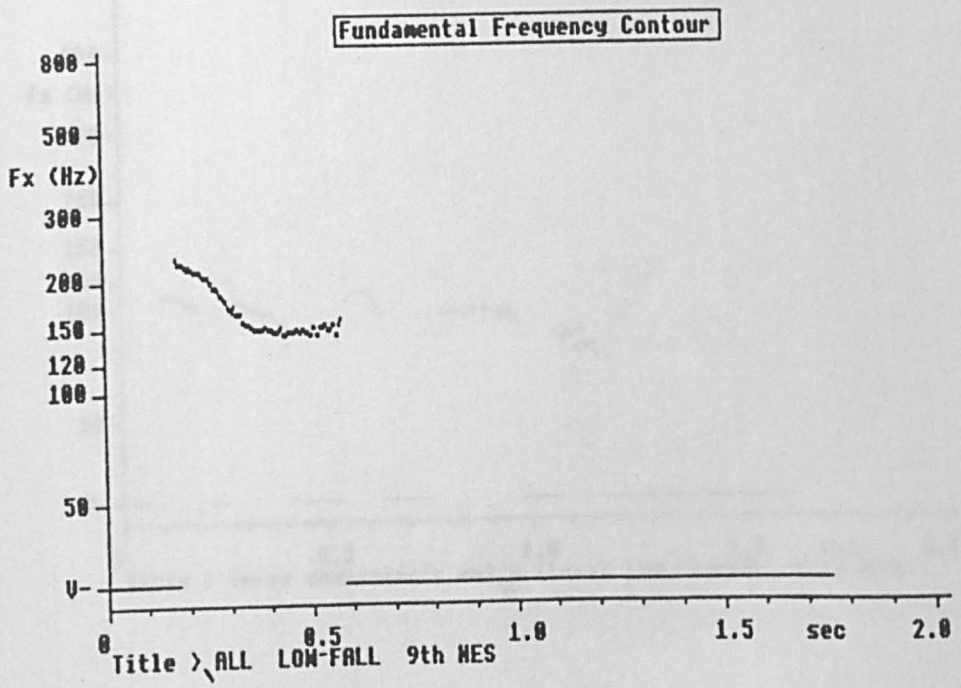


Figure 1



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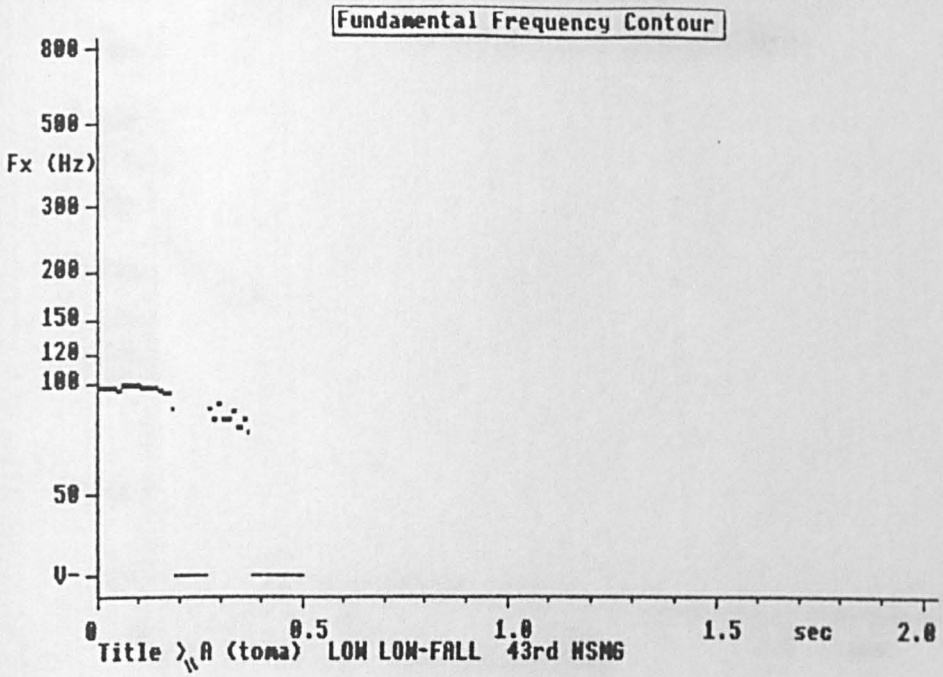

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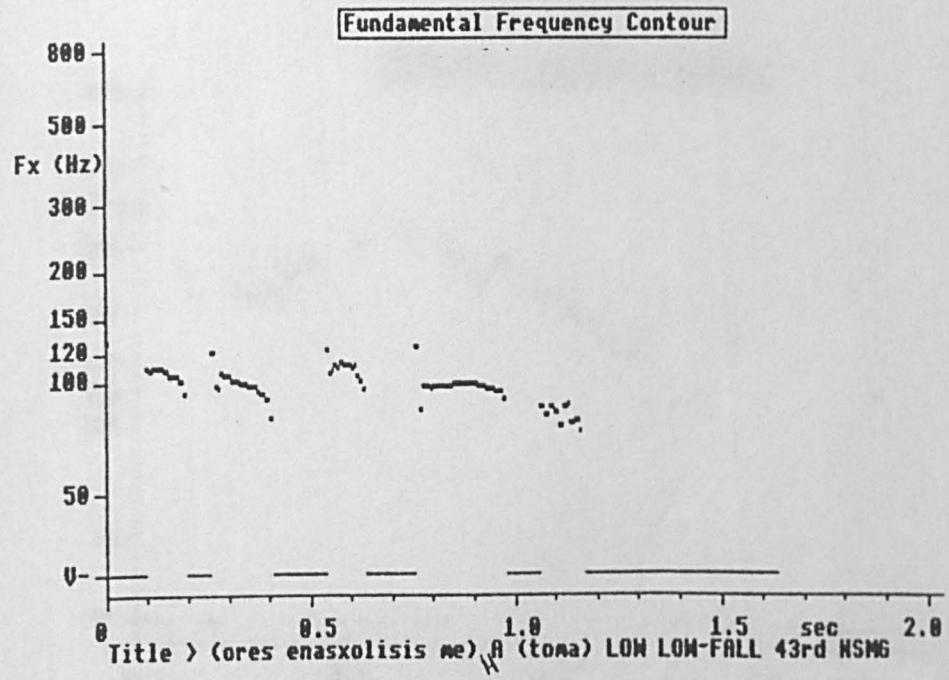


Figure 4

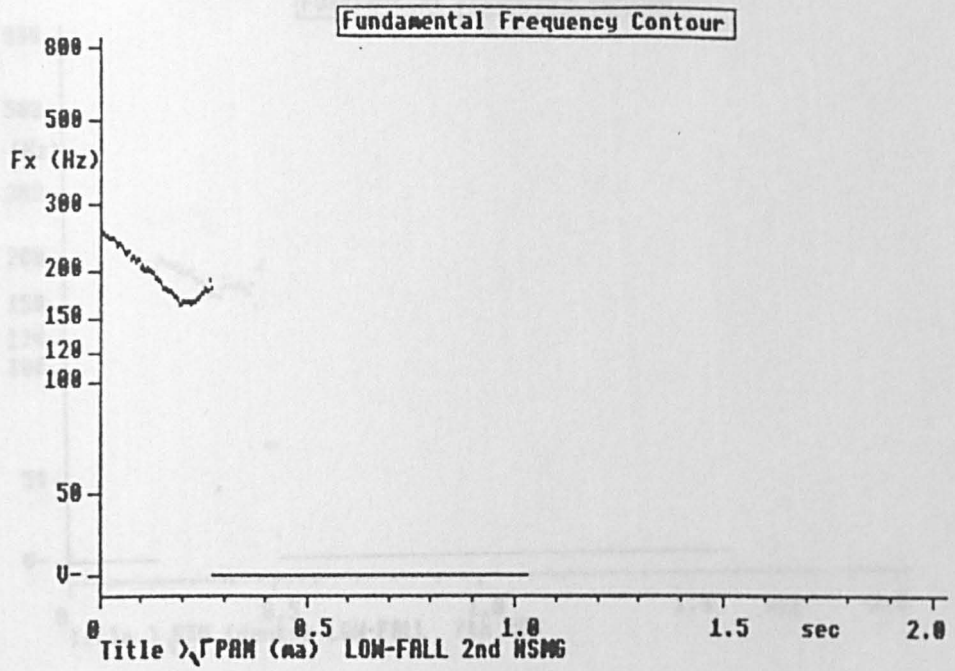


Figure 5

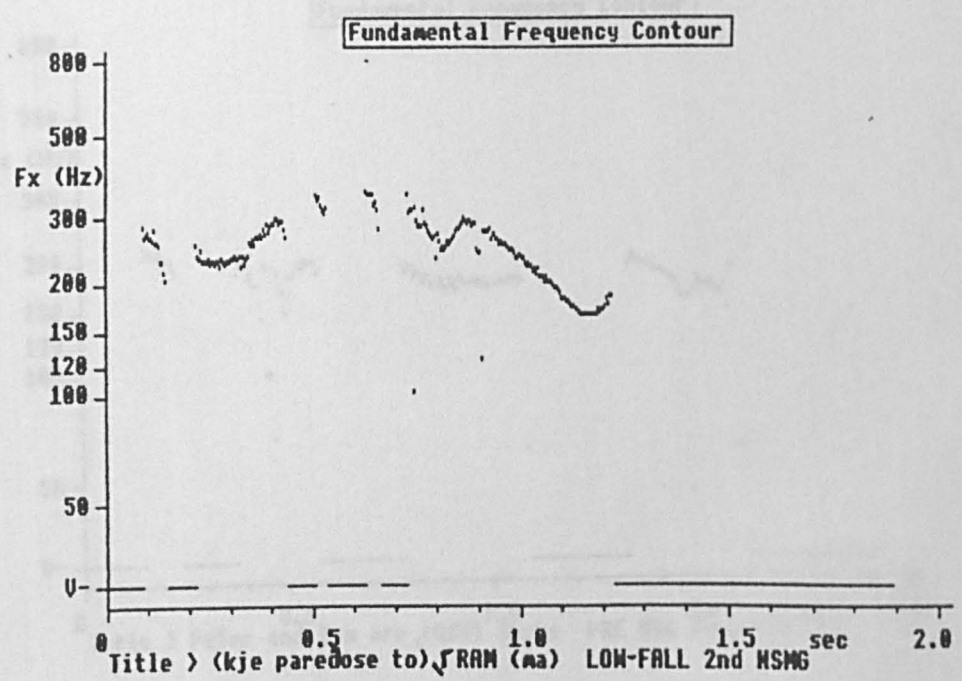


Figure 6

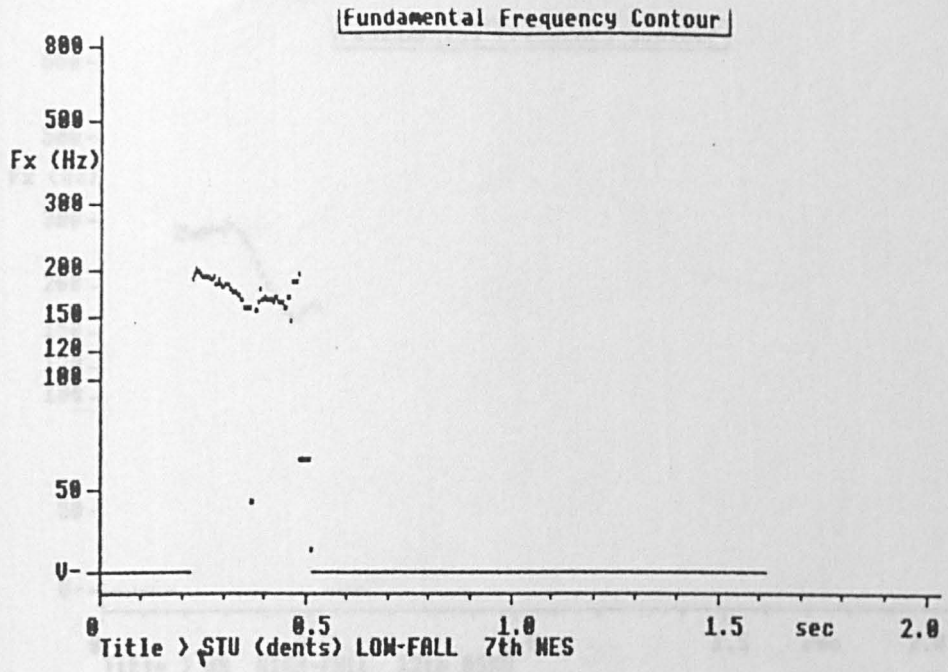


Figure 7

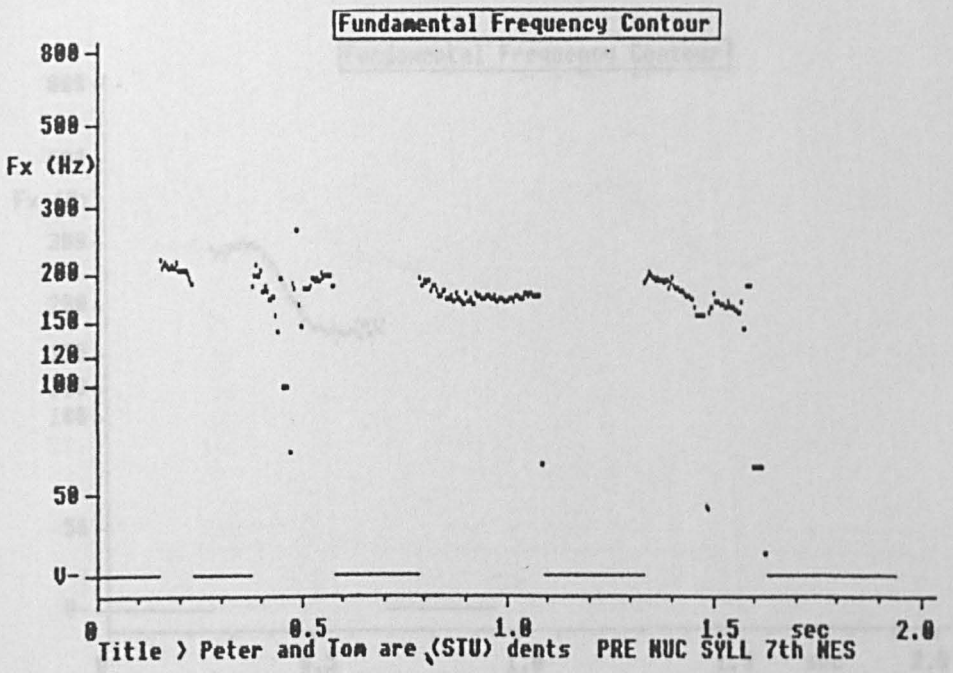
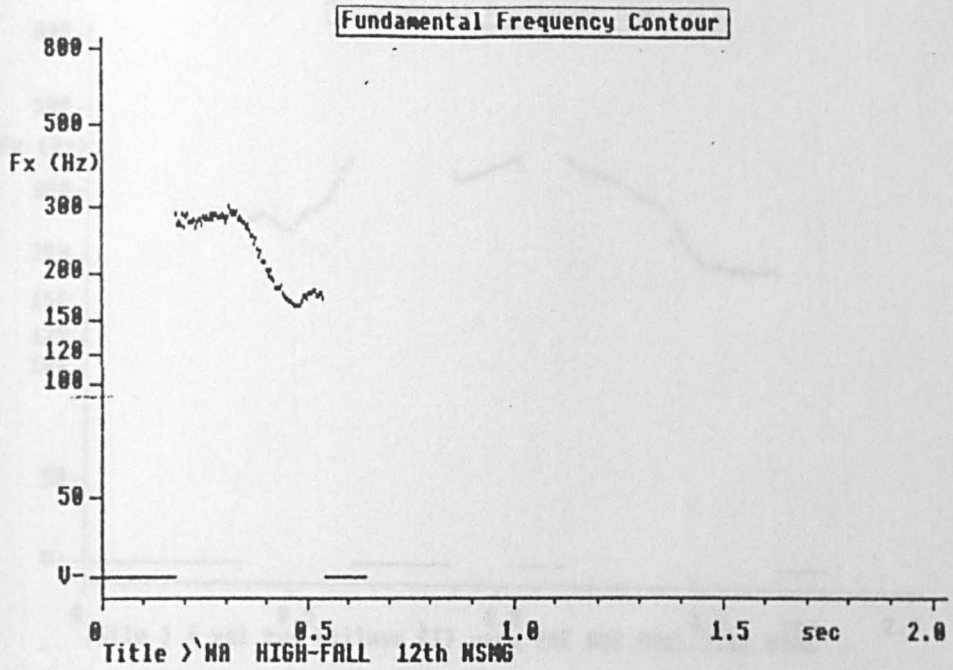


Figure 8



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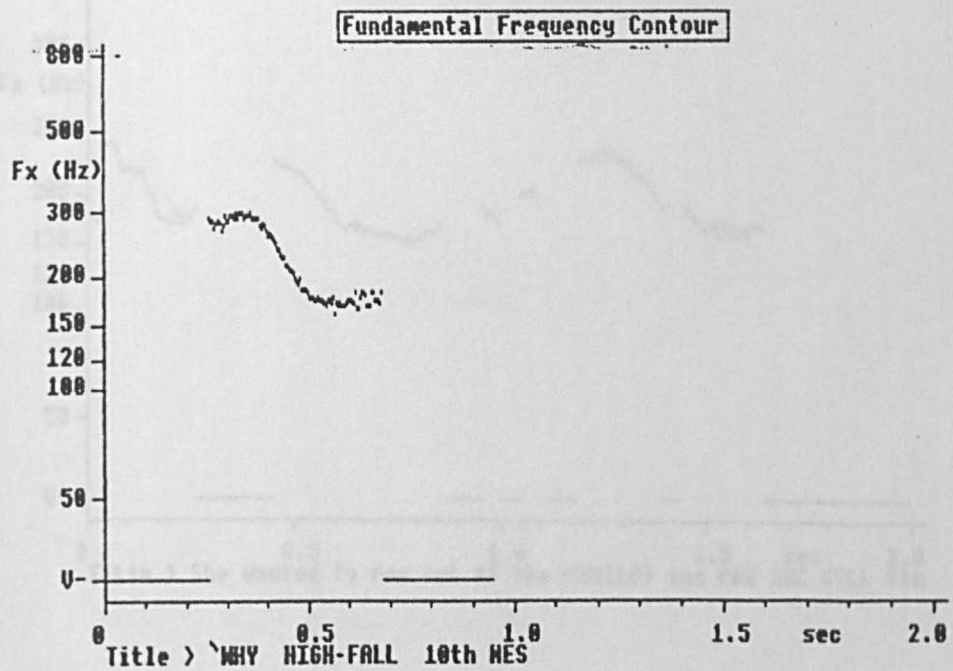

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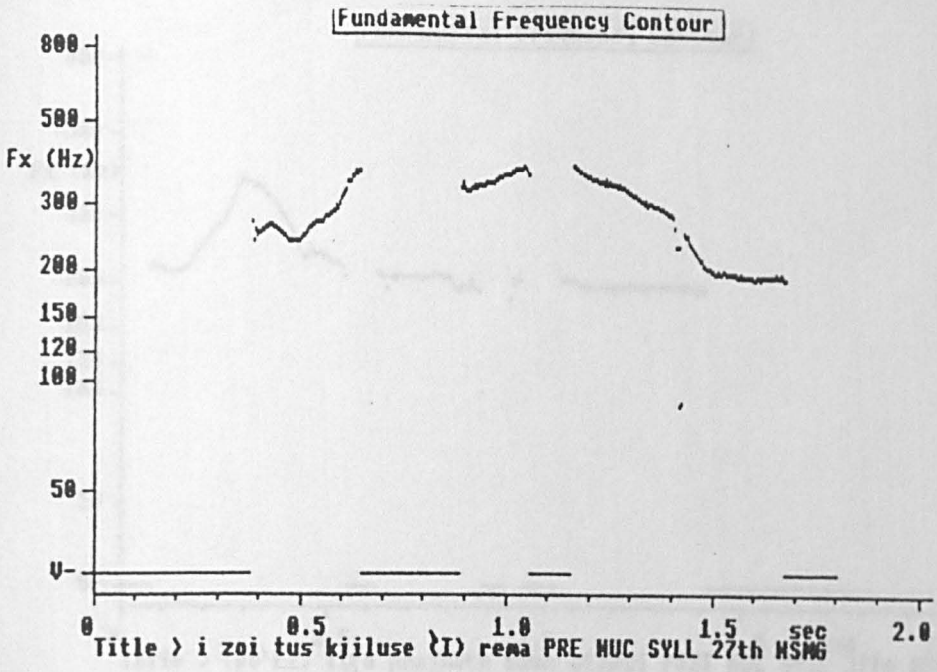
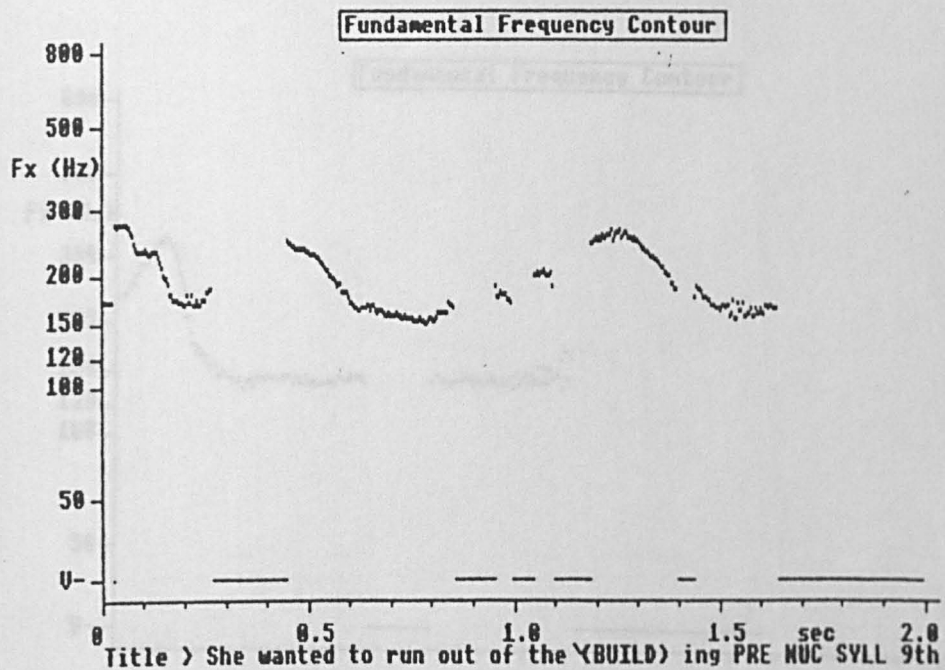


Figure 11



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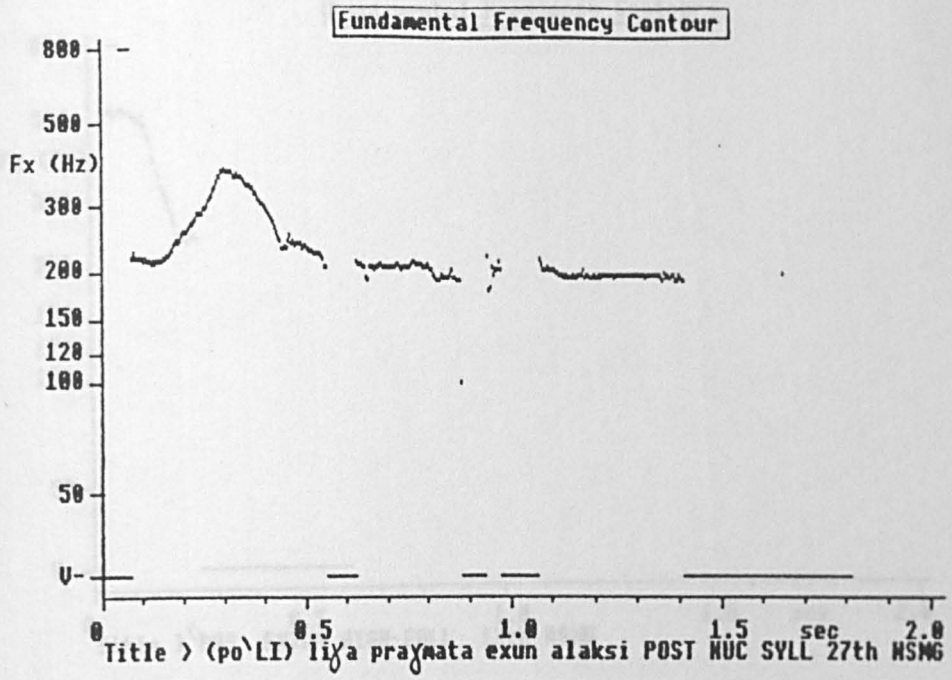


Figure 13

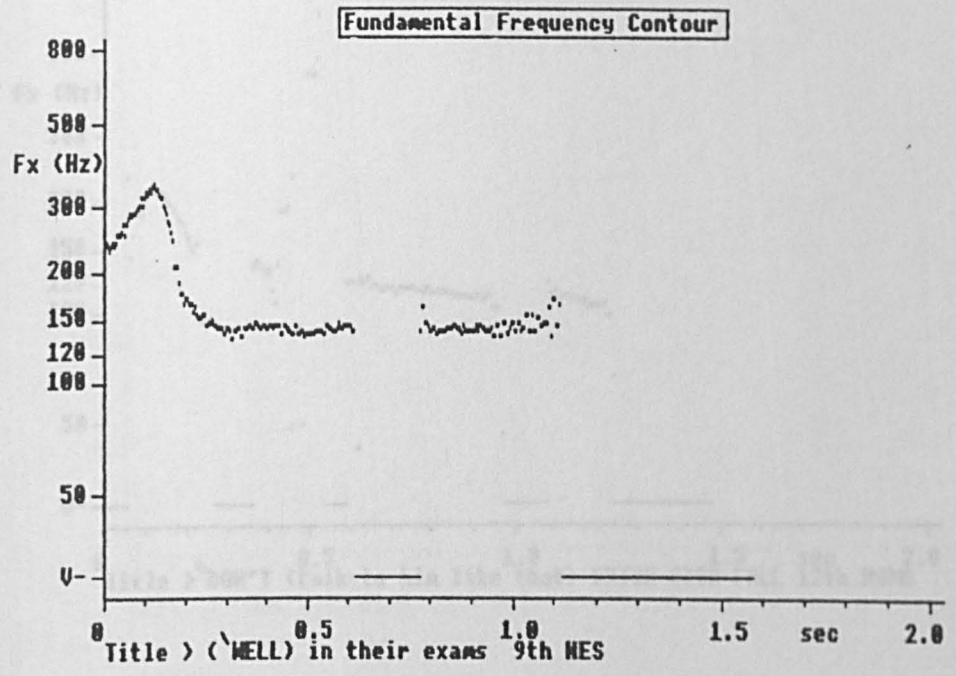


Figure 14

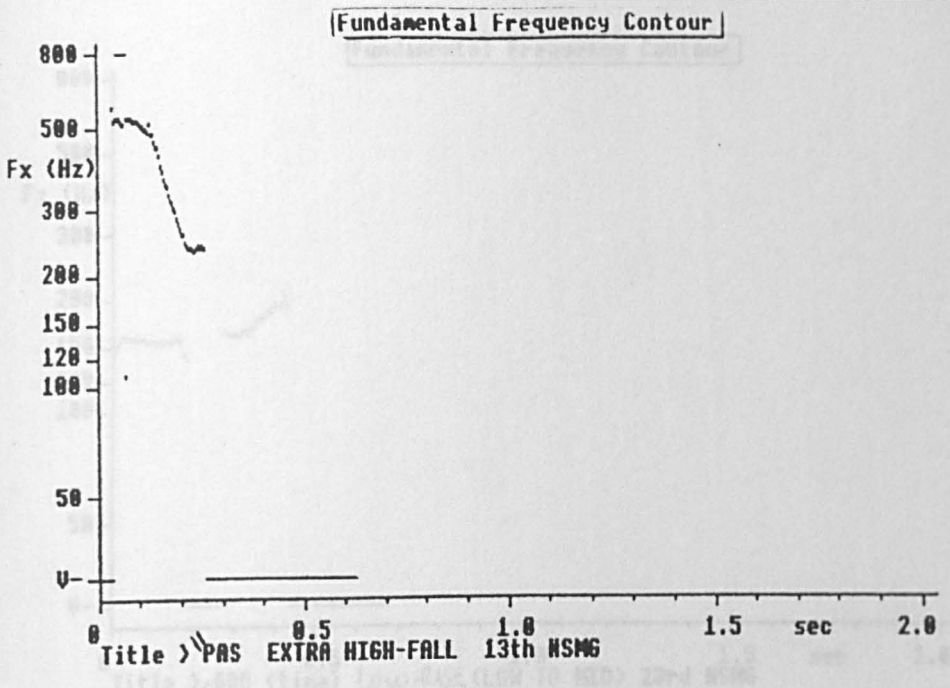
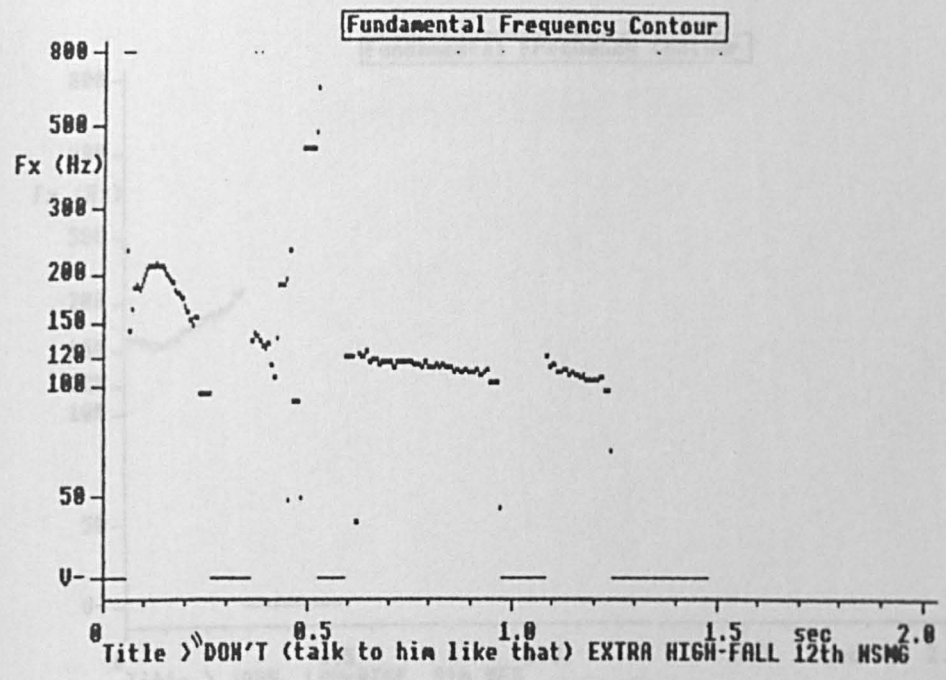


Figure 15



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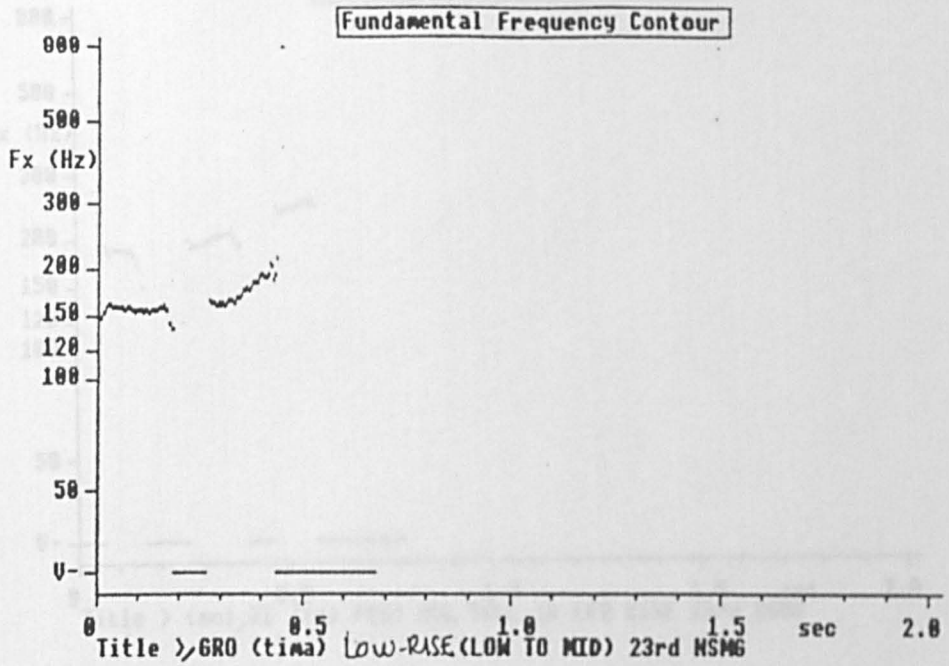

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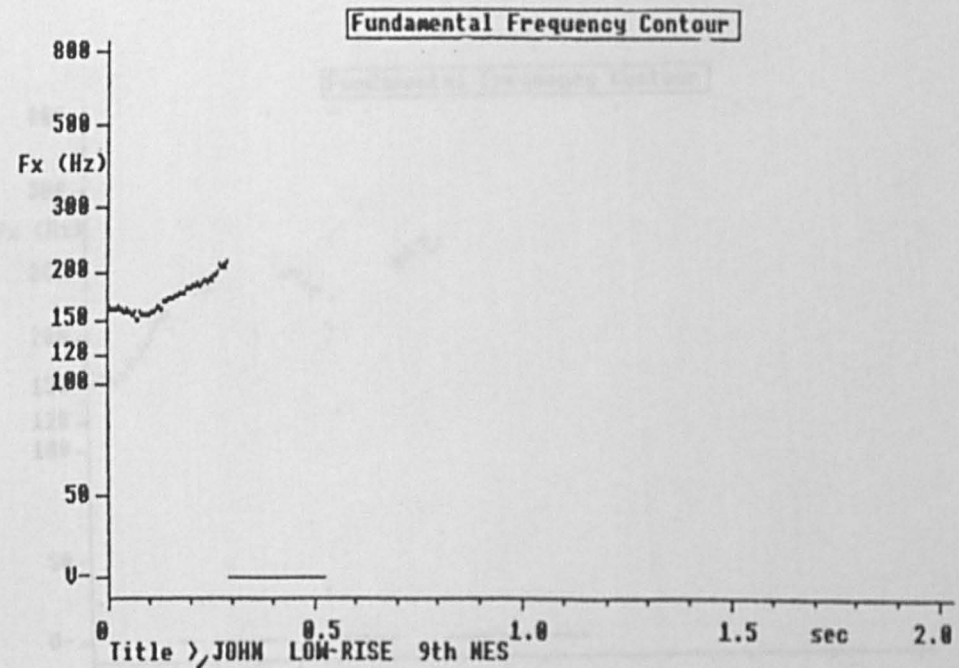


Figure 18

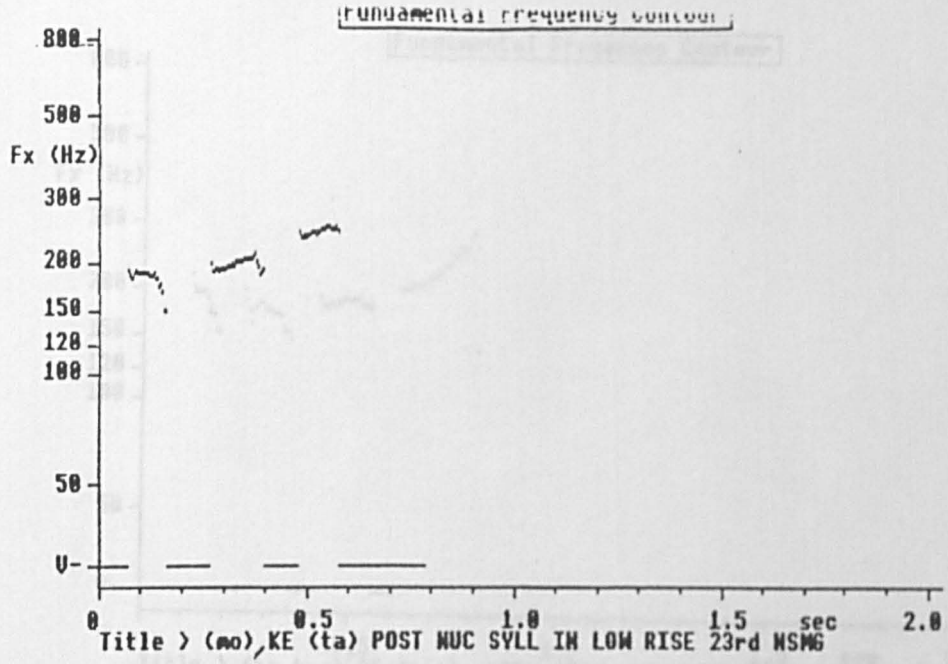


Figure 19

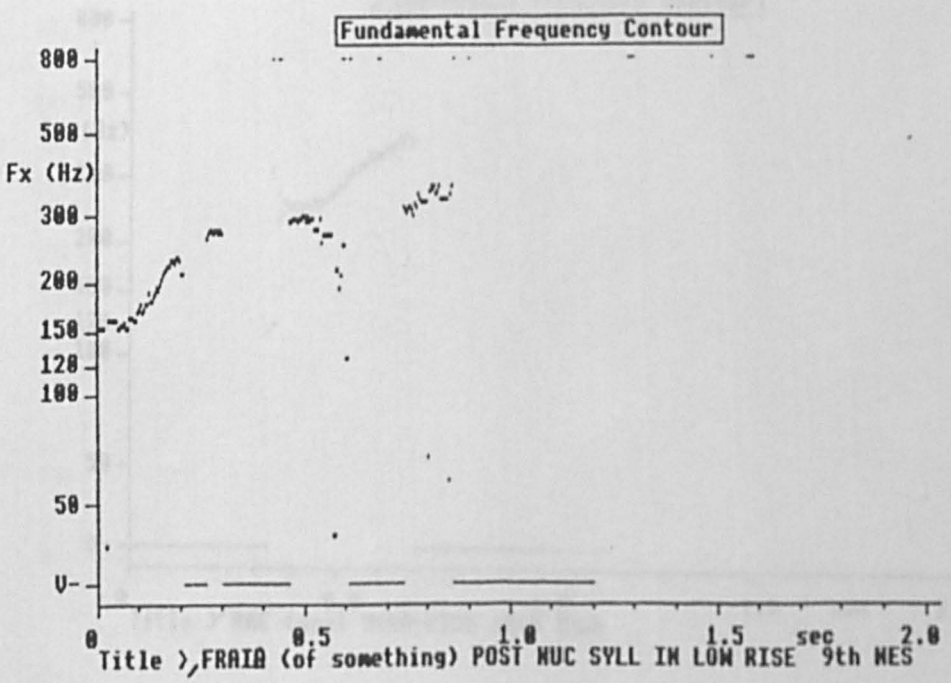
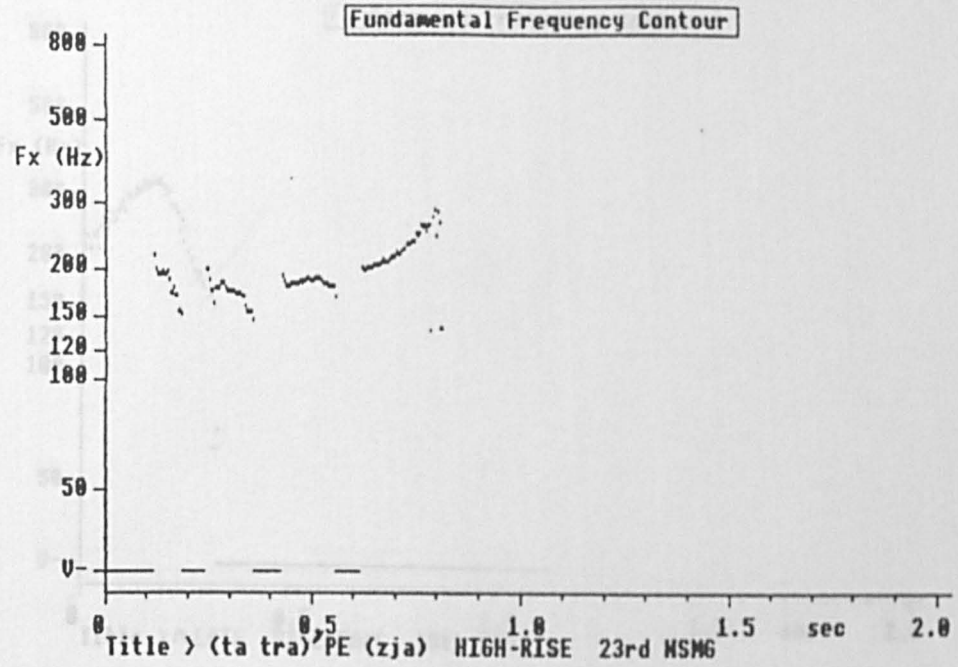


Figure 20



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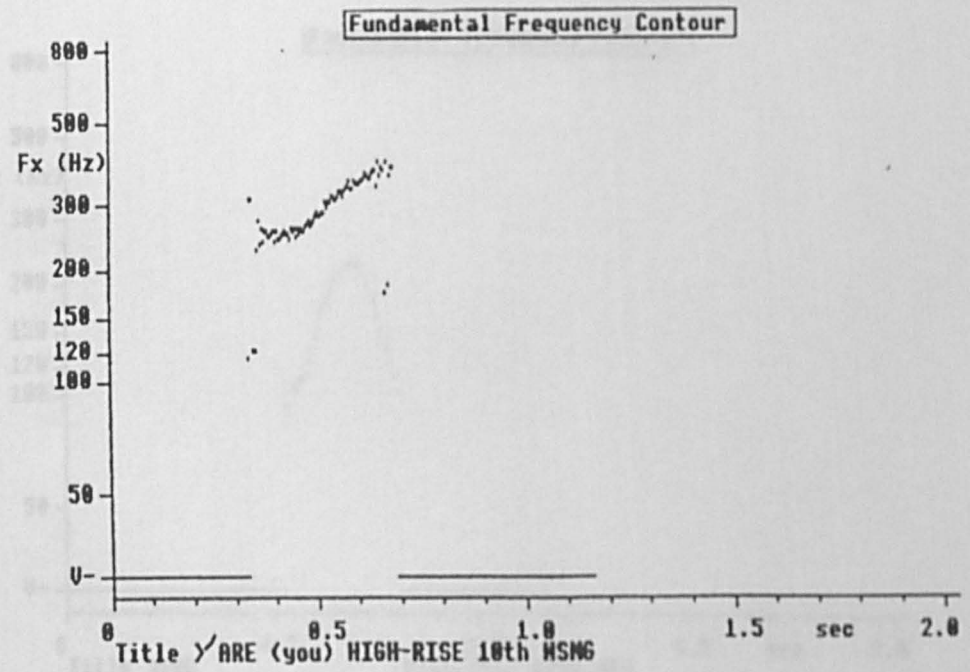

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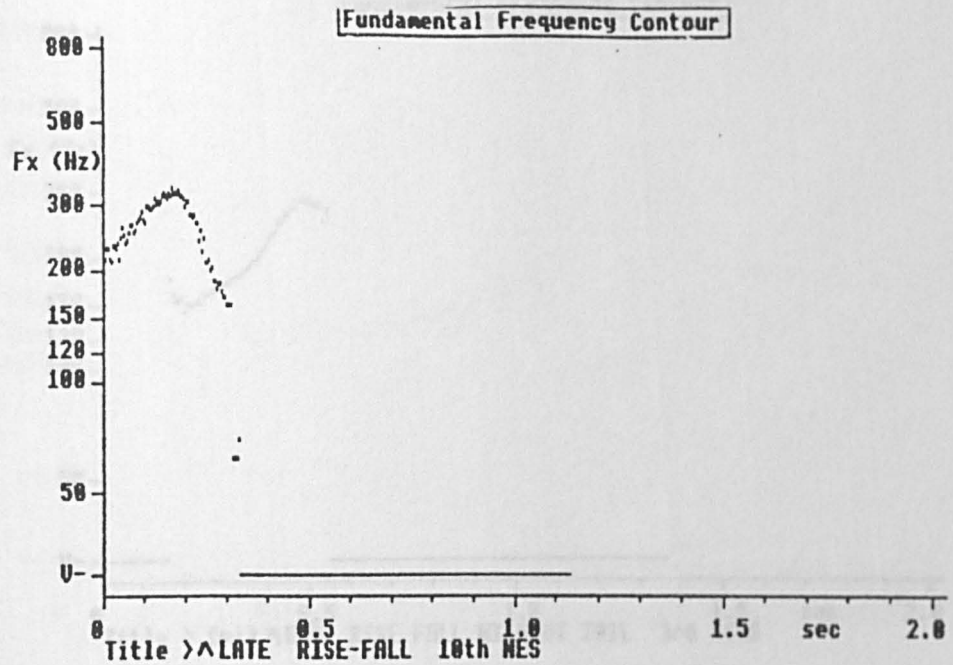

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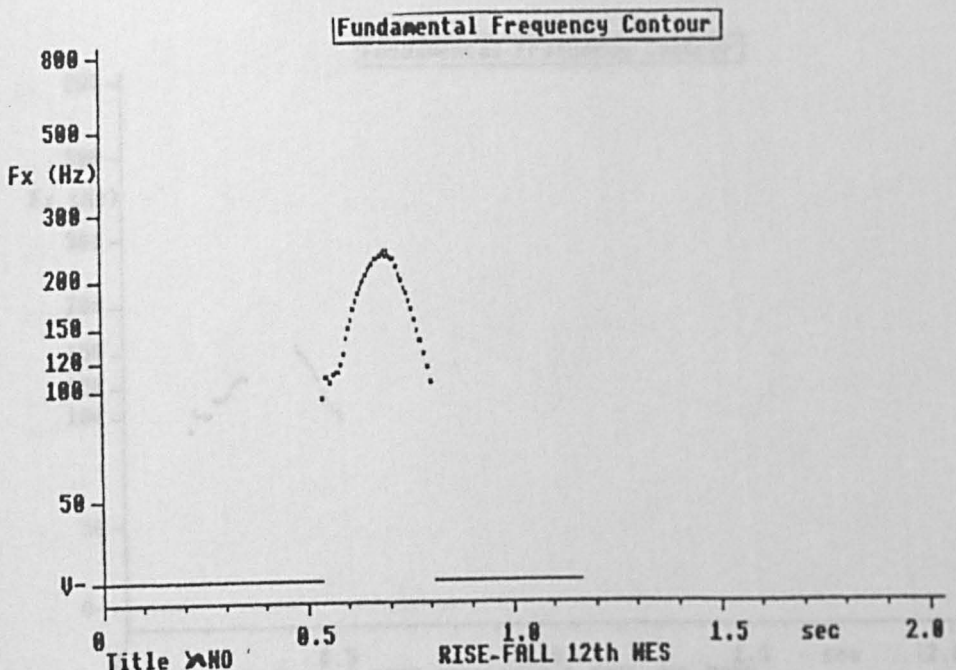

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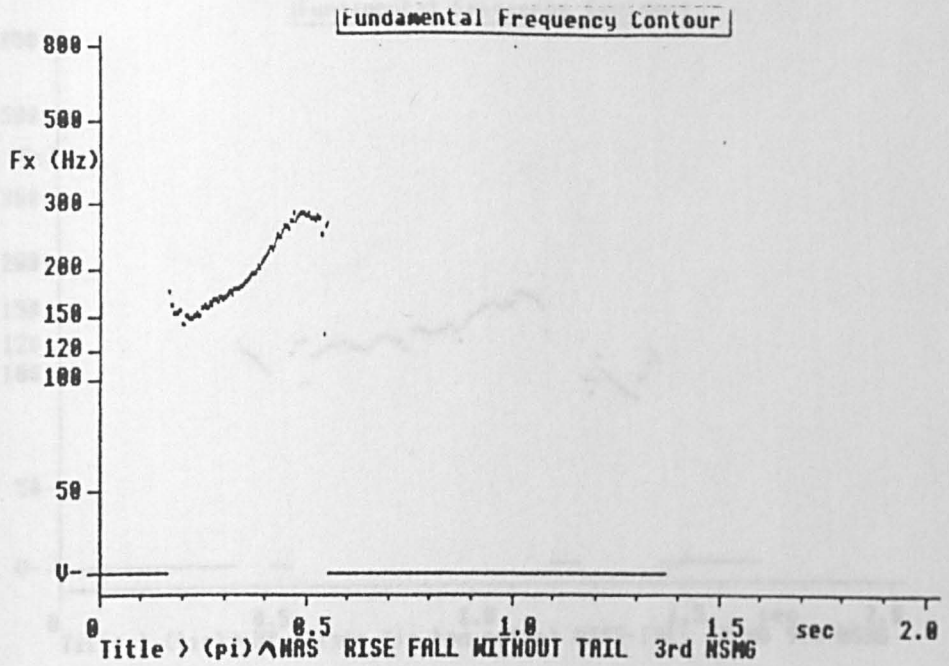

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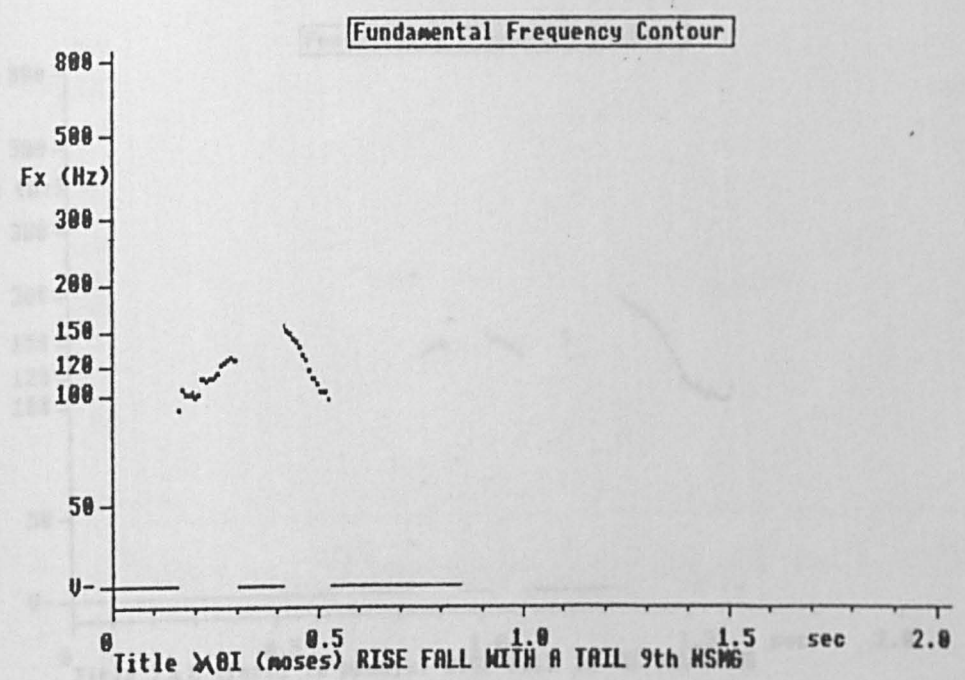

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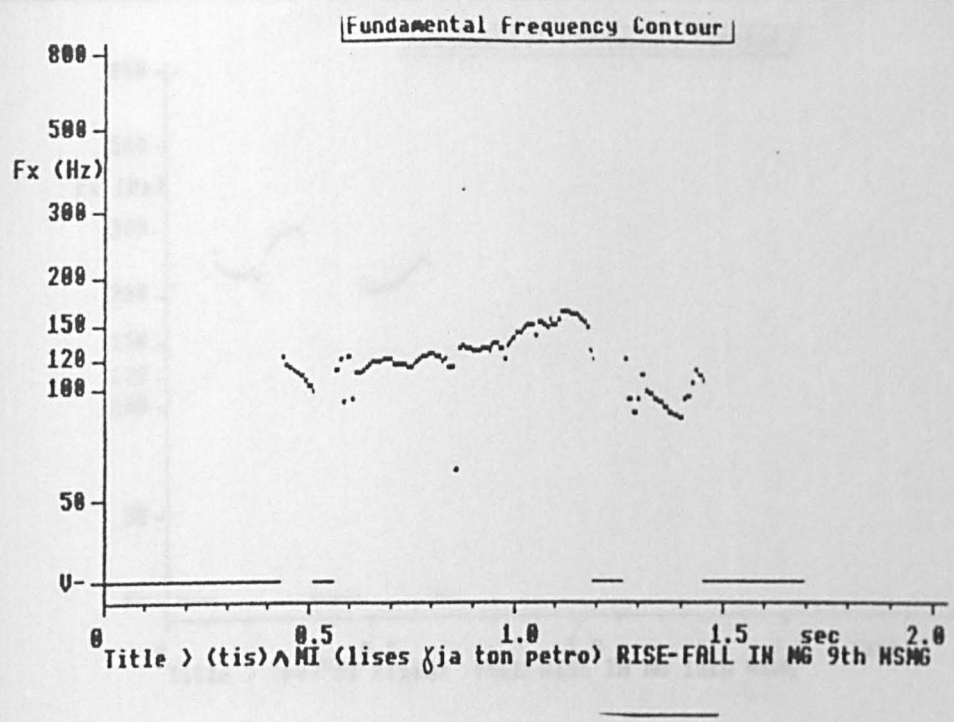


Figure 27

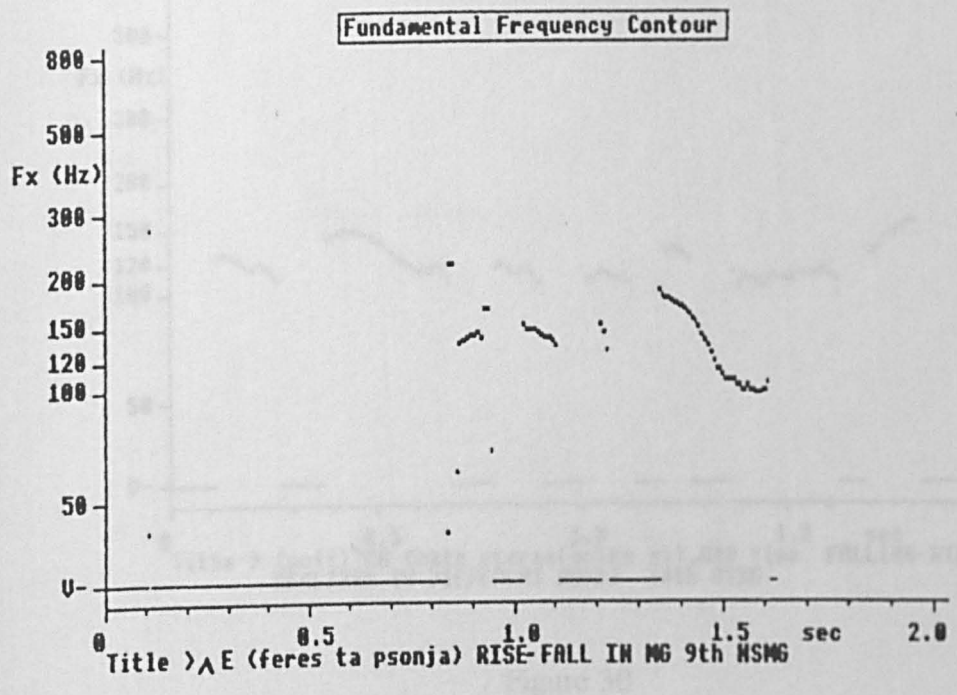


Figure 28

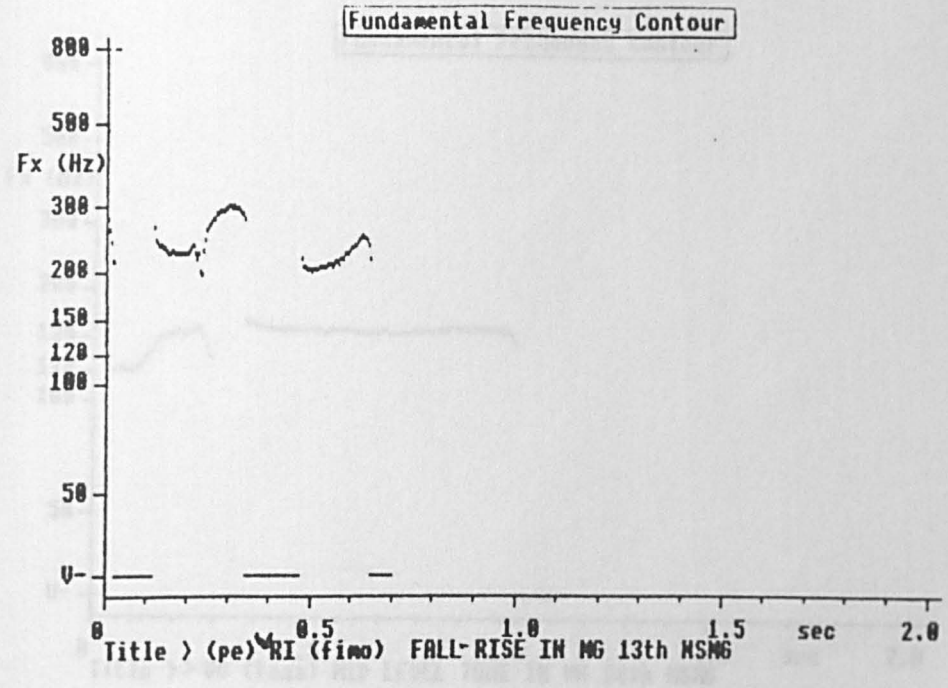


Figure 29

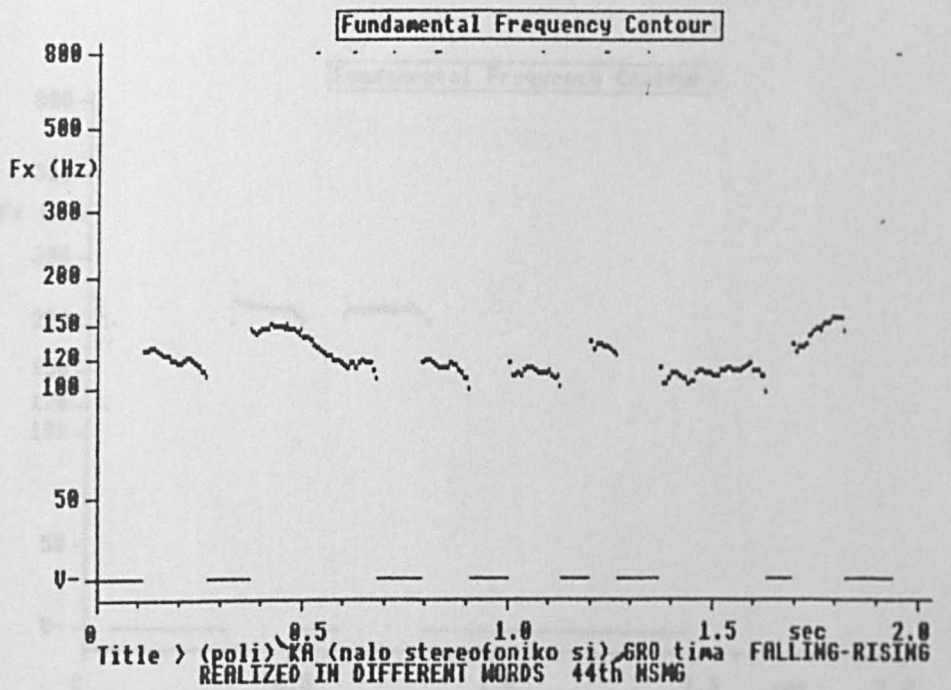
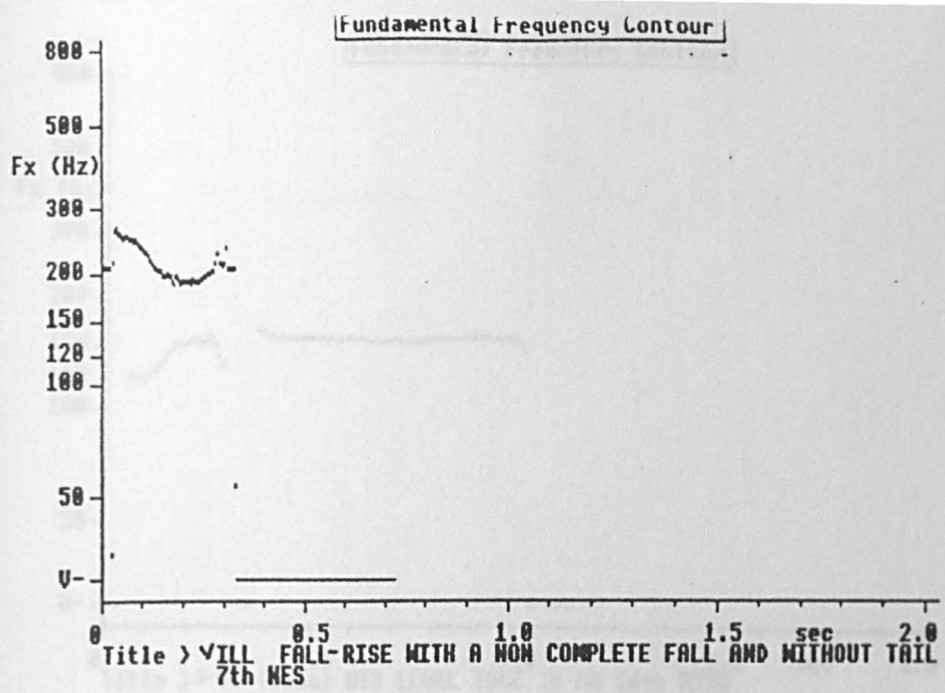


Figure 30



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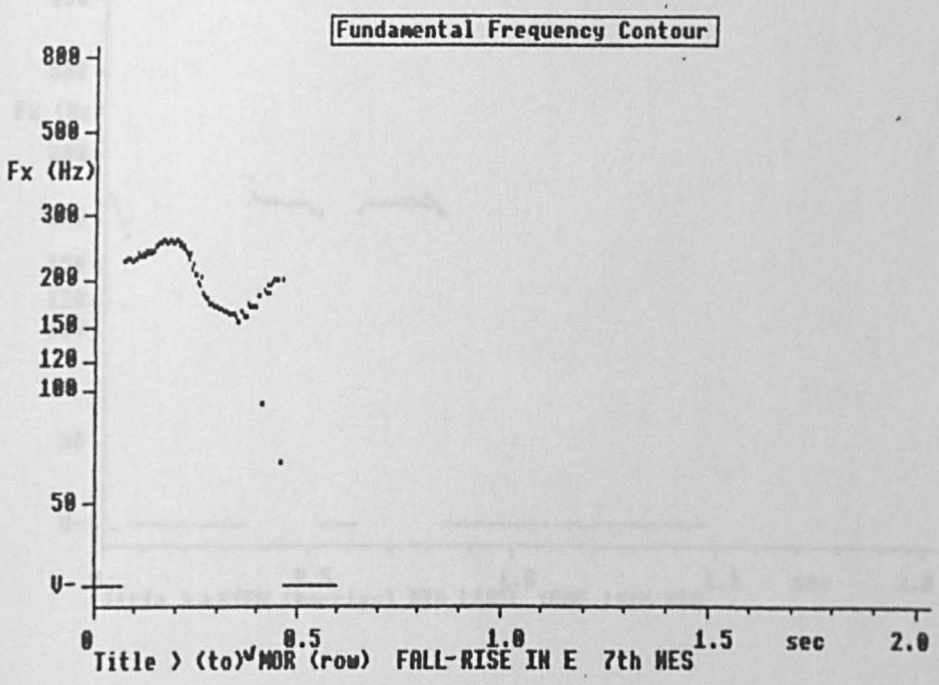

Figure 32

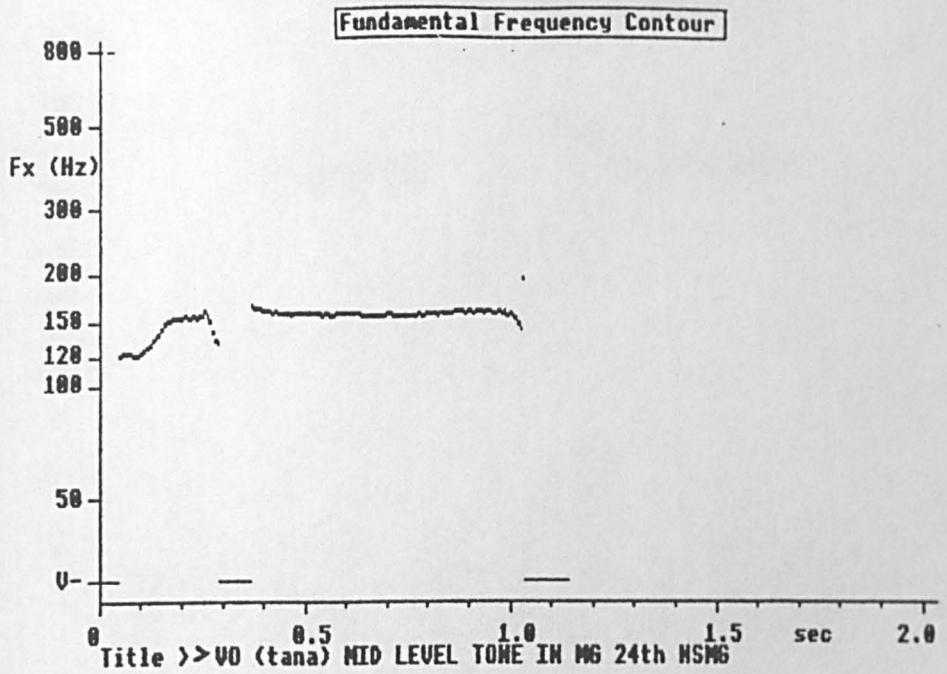

Figure 33

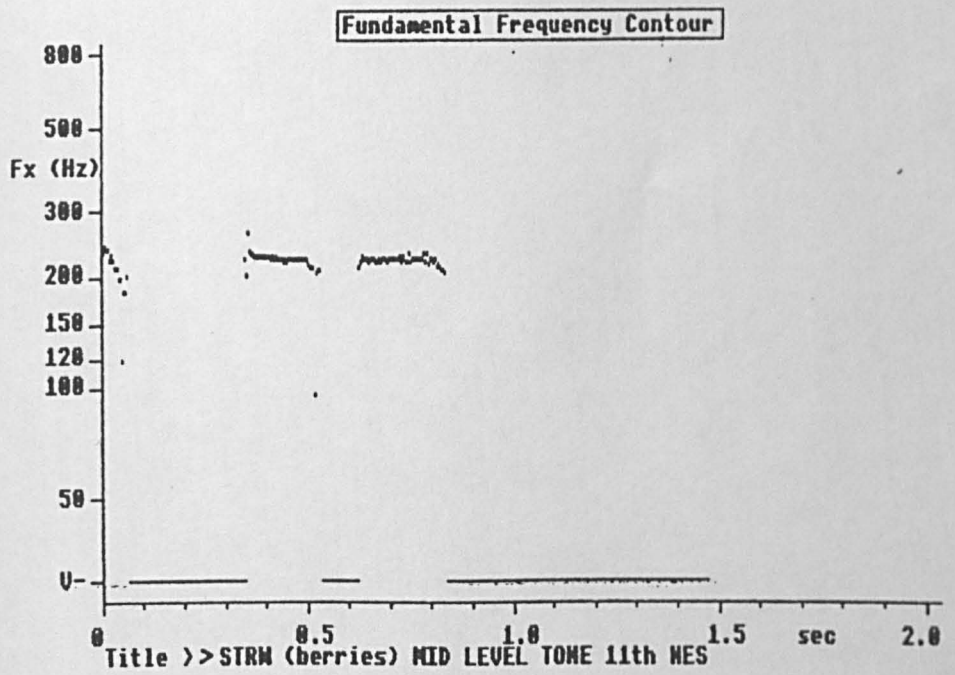

Figure 34

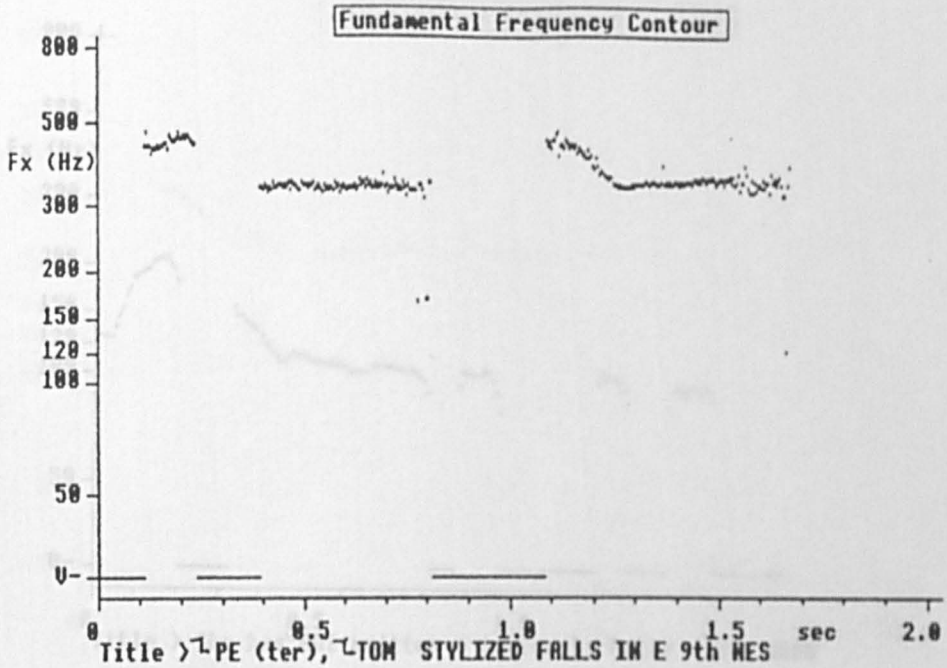
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Figure 35

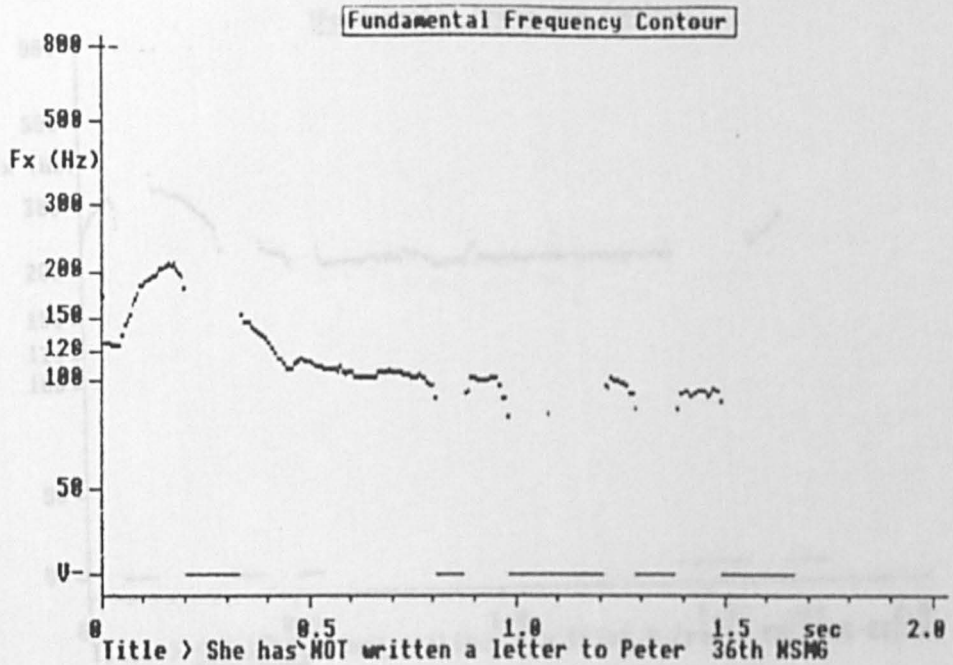

Figure 36

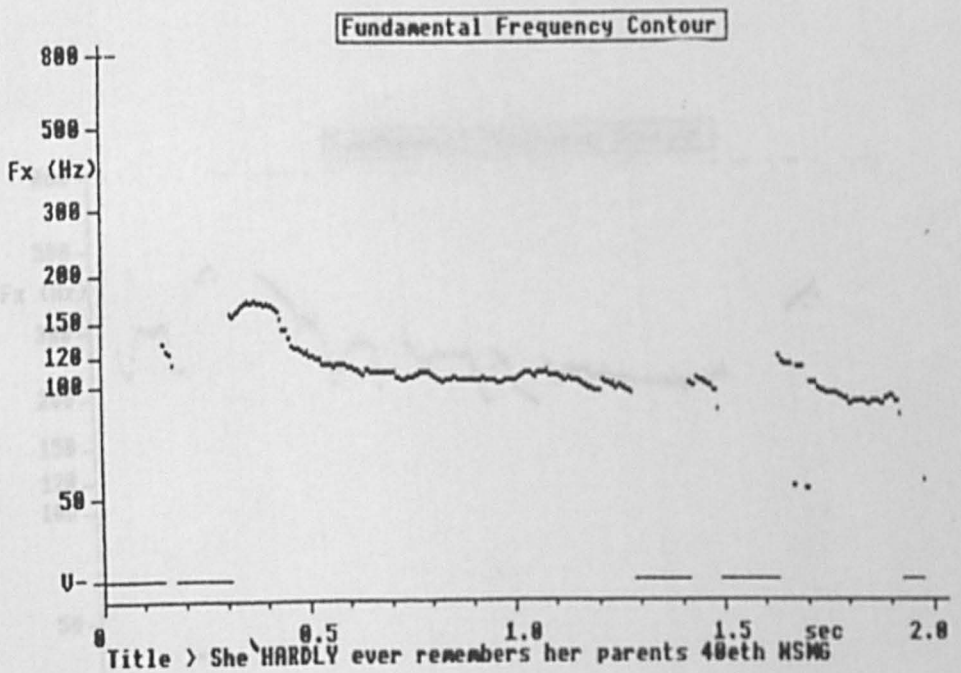

Figure 37

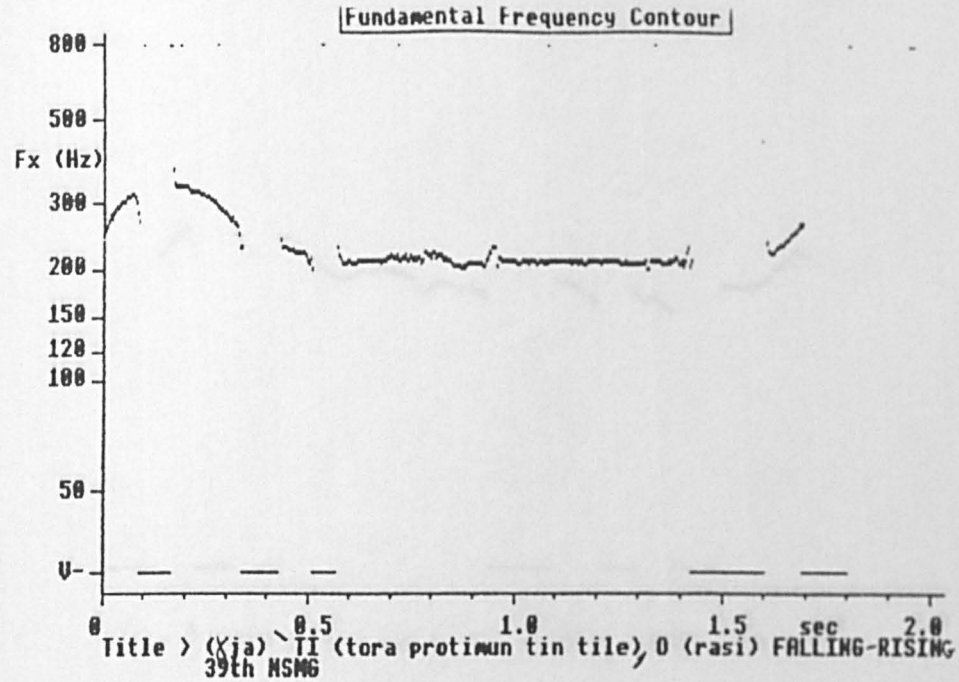

Figure 38

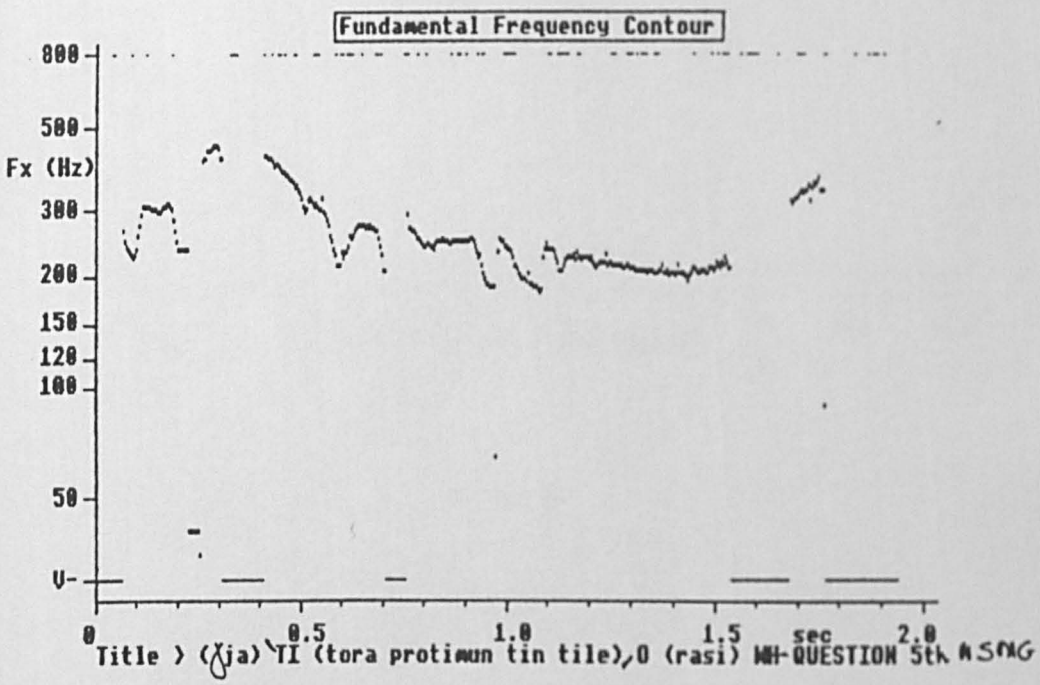

Figure 39

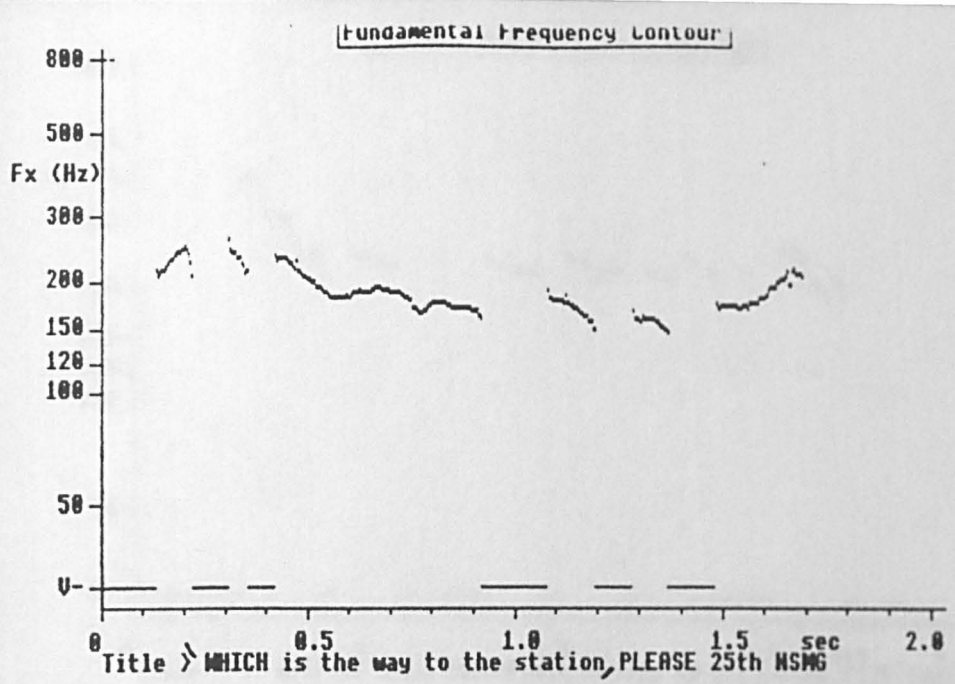
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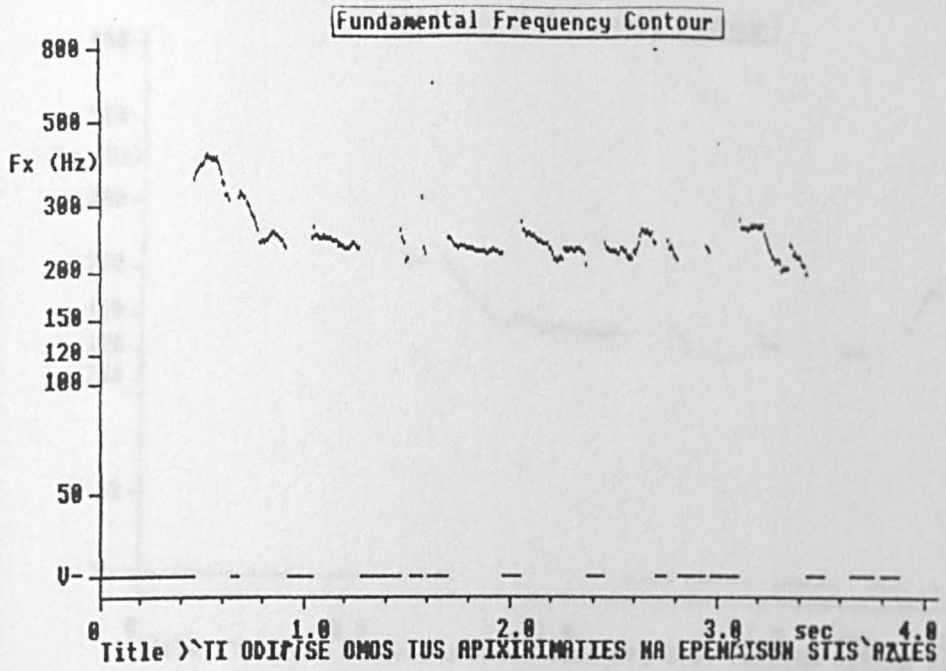
Figure 40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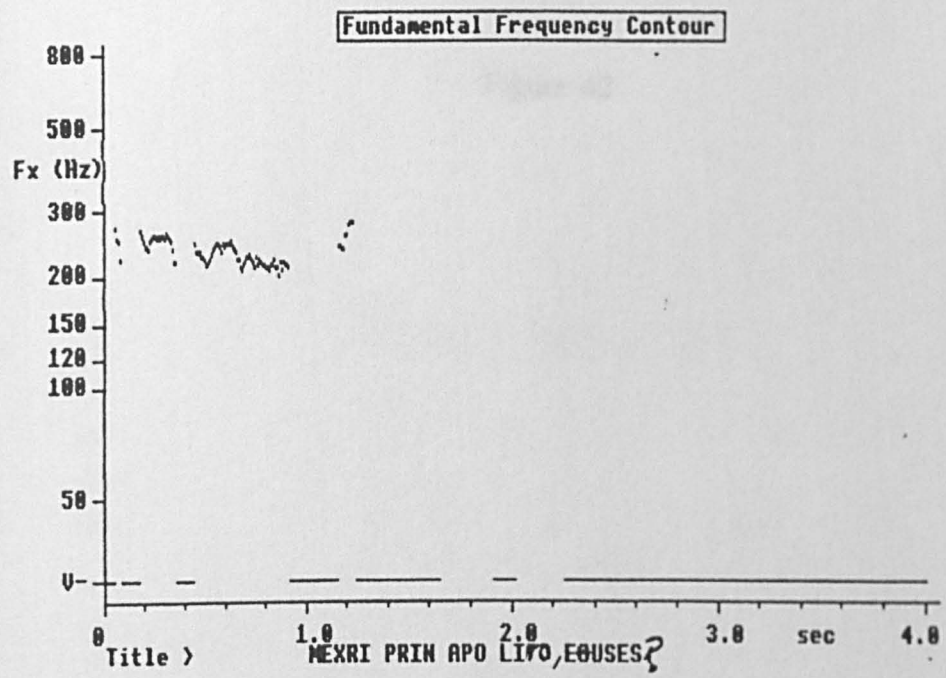
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Figure 41

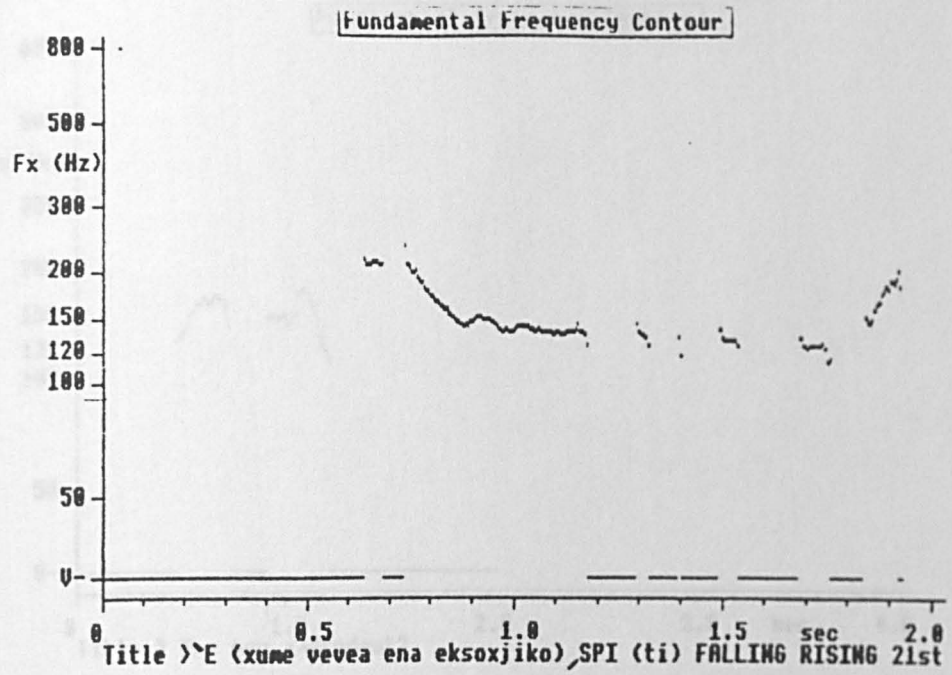
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Figure 42

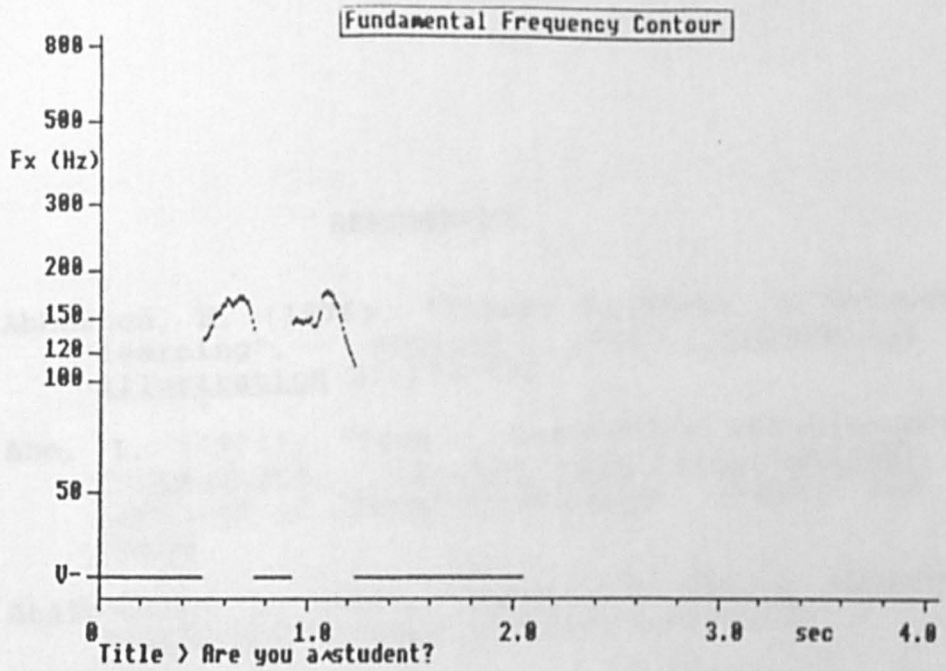

Figure 43

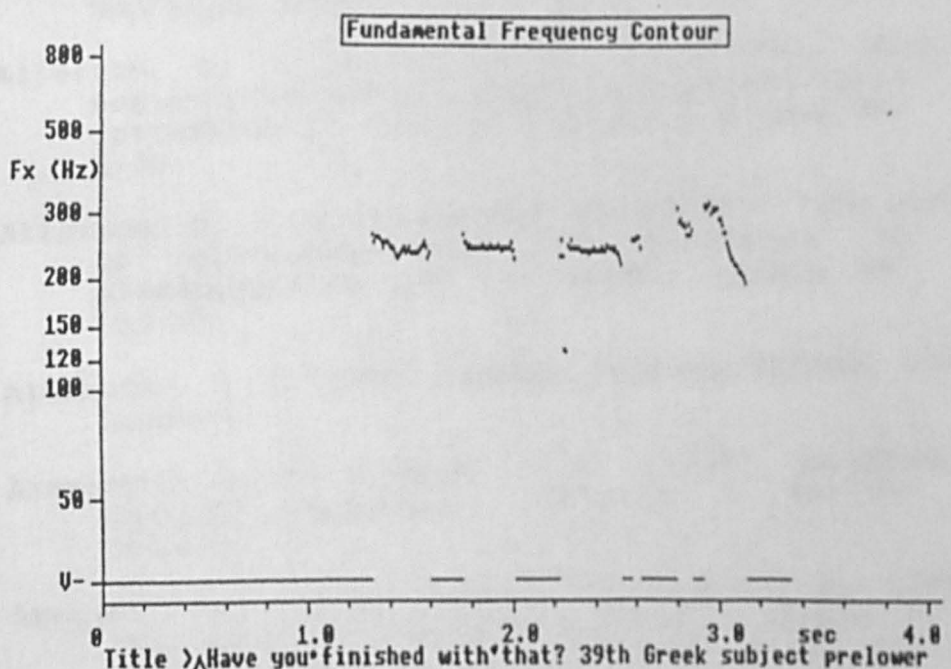

Figure 44

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